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THE
D U T I E S
OF A
REGIMENTAL SURGEON
CONSIDERED:
WITH
O B S E R V A T I O N S
ON HIS
GENERAL QUALIFICATIONS;
AND HINTS RELATIVE TO A
MORE RESPECTABLE PRACTICE,
AND
BETTER REGULATION OF THAT DEPARTMENT.

Wherein are interperfed many Medical Anecdotes, and Subjects difcuffed,
equally interefting to every Practitioner.

By R. HAMILTON, M. D.

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Physical Societies of Edinburgh; and of the Medical Society of London.

IN TWO VOLUMES.

THE SECOND EDITION, WITH ADDITIONS AND CORRECTIONS.

ATTAMEN ERRORES NON SUNT ARTIS, SED ARTIFICIUM.—Newton.

VOL. I.

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DEDICATION.

To the Reverend JOHN CAMERON,

IN THE

COUNTY OF ANTRIM, IRELAND,

DEAR SIR,

*THE first Edition of this Work was dedicated to a respectable Friend * not unknown to you, who favoured me with his Confidence before my medical Studies commenced at an University. It was a Tribute I owed him for the Intimacy with which he honoured me, and I paid it with Pleasure. He is now no more; yet I shall long venerate the good Man's Name.*

I turn again to my native Land;---and it gratifies me not a little in having this Opportunity of inscribing the present Edition to you. By this I acknowledge and renew our former Friendship, and

** Rev. Mr. Smith, Brother to the late Lieutenant General Smith.*

assure you of the Esteem in which I have ever held your Character.

Your Acquaintance with me was even prior to his whose Death I lament; and the mutual Confidence in which we lived, was no less compleat.

Our early Attachments we remember with Satisfaction; they afford us some of our most pleasing Reflections; and whenever they occur, the pausing Mind dwells on them with peculiar Delight. This I have felt as often as the Time to which I allude recurred on my Recollection.

A Similarity of Taste, in Spite of the Disparity of our Years, drew me strongly towards you while I was yet young; and by our continued Intimacy, and the reciprocal Communication of Ideas, the Culture of my Mind was improved, and my Understanding modelled to more Perfection. For you pointed out to me the Path to Science, and by your own Example, kindled in my young Breast an Ardour for the Study of Nature, and a Spirit of Enquiry into general Philosophy; which, however small my Progress may be therein, has never to this hour diminished.

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DEDICATION.

Nay, it was even then I first turned my Attention to the Study of Medicine as a Profession; and my first rude Essay in exploring the component Parts of Animal Bodies, was in some Measure attempted under your Direction*. For though no Adept in Anatomy, as being little connected with the Duties of your Station, yet you encouraged my Research.

Had I no other Motive whatever than this to prompt me, small as it may appear, it would form no improper one for placing your Name at the Head of some Part of my Labours in a Branch of Science thus begun under your Auspices.

That you may live long and happy is the earnest Hope, and sincere Wish of him who now publicly subscribes himself your Friend, and who always respected your eminent Virtues.

I remain,

Dear Sir,

With Esteem,

Your's, &c.

R. HAMILTON.

Ipswich, June 24, 1794.

* This alludes to the Dissection of a Dog. After reading Keil's Anatomy, and Lewenhöek's Works, with which he furnished me, I was stimulated to attempt a Dissection.

P R E F A C E.

A VARIETY of useful, and interesting treatises have been written, especially within these last fifty years, on military medical practice, wherein most of the diseases incident to troops have been minutely described and judicious plans laid down, both for their prevention and cure; but no author has hitherto pointed out, in a more particular manner, *The Duties of the Regimental Surgeon*, or taken up the subject in the light in which it is here set forth,

If novelty, therefore, be any recommendation, the following work has this to plead in its favour; but we hope it has more; its object is utility, while it inculcates humanity towards a class of men, whose situation, at best, is but uncomfortable, and yet to whom the
community

community are under obligations.—I mean the *Soldiery*.—At the same time a review is taken of the general *Character* and *Conduct* of the regimental surgeon, as well with respect to the accomplishment of this, as to his own more comfortable situation.

If the author has sometimes in pursuing his subject, spoken freely, it is not with a design to cast obloquy on individuals, but thro' an ardent wish, that the regimental surgeon may become more respectable, and to attempt a reformation in several parts, where, perhaps, the military medical name has, in a general sense, been too justly exposed to censure.

Altho' several eminent men have been,* and are in the service in the station of regimental surgeons, who previous to their engaging in the army practice, have with credit to themselves, and to the universities wherein they re-

* Among these we may mention Professor Home of Edinburgh, the late Dr. Steedman, and Dr. Warburton of ditto, and many others, whose names reflect credit on the station.

ceived their medical education, arrived at the highest rank in the science of medicine, which the schools can confer; yet it is a truth too well known to be denied, that many more have, and do daily find their way into it thro' *interest* and mis-applied *recommendation*, whose opportunities of qualifying themselves to undertake so important an office, have been *almost* none, or, at best, extremely limited.

It is not of the well-informed medical practitioner, such as are alluded to above; but of *these*, I am chiefly to be understood as applying my remarks in the following work, who, young and inexperienced in the profession in which they are engaged, and without that foundation to build on, which it behoved them to possess, may think too lightly of the duties of their station, and of medical practice, because they have not been taught *how* to estimate it justly, or take those advantages of disease, that a more liberal education would have put in their power,

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To regulate health, and to attempt the removal of disease is, surely, a matter of the highest moment to society. The lives of his fellow creatures are unlimitedly placed in the hands of the medical practitioner, and a confidence reposed in him by the public, too often on his own word, and without sufficient testimonials of his qualifications from those capable of judging, which in the most trivial branch of employment in common concerns would be denied the pretender, till specimens of his abilities had been previously examined, and a proper estimate formed how far he was initiated in the principles of the branch he proposes to follow.

Does any man trust a person who calls himself a *taylor*, a *shoemaker*, a *carpenter*, &c. &c. to make him a coat, a pair of shoes, a door for his house, &c. without first having known something of his capacity in the business in which he means to employ him? — Before the carpenter can set up for himself in his business, custom ordains, and the laws give it

coun-

countenance, that he shall be regularly bred to the trade, and a specified term of years, is for the most part, fixed to be allowed him for this end; short of which is not thought competent for obtaining a proper skill in the handy-craft, to give him pretensions to the name he would assume.

Is it not strange, that the same pains should not be equally exerted in a matter of such magnitude as the employment of medical practitioners?—The one at most can only spoil you a piece of labour, and cost you nothing but its price, which your purse may easily afford to repair, while the unqualified man, who usurps the medical character, and incautiously deals out his drugs, poisons when unskilfully applied, *may*, nay often, we fear, *does*, rob you of the life of your dearest concerns, your friend's, your child's, your wife's, or perhaps your own, for ever beyond the power of reparation.—Such is a melancholy picture of our credulity, in these nations; but such is truth!

The

The innumerable swarms of quacks, and mediceasters, which, to the disgrace of the laws of Great Britain and Ireland, beyond all other civilized and polished nations, that daily abound, clearly evince, the above reflection, severe as it may seem, is but too well founded.*

—The nostrums sold in every shop, and pushed off in every newspaper; the empyrics that daily stand in our streets, and infest the neighbourhood with the most barefaced assurance, deluding the incautious and credulous multitude, robbing them of that which should buy them food and clothes, and promising them health, which they cannot bestow; and which a little time proves, that their impudence, and their design to cheat, were the sole motives by which they were actuated.—Let these, I say, stand forth, and declare how far the remark is founded in justice!

* While I am writing this, one of these Imposters stands in our streets, raising large contributions on the credulous multitude. Let truth, and his works speak his Eulogium.

It

It was the serious consideration of this subject ; I mean, the importance of the trust reposed in the medical character, whether in a settled situation, or in the less stationary condition of a military practitioner, that first gave rise to the remarks contained in the following pages. Several of them, there is reason to fear, are not more applicable to the army practice, than to many settled practitioners, loaded with the misplaced confidence of the public, in various towns and villages throughout these kingdoms.

The observations I have ventured to make on that which is the chief purport of this publication, are drawn from minute attention to the subject. For my situation unavoidably afforded me many opportunities, notwithstanding my station was confined, and my services limited to a few years only during the late war.

Whether I have spent my time well, or otherwise, in collecting them, the public must judge. This I can with the utmost veracity

city declare, whatever may be their reception, that my aim was *utility*, and my principal motive, the good of those for whom I have taken up my pen.

It will appear to the reader that considerable pains have been taken in the course of my illustrations, to intersperse it with medical anecdotes, &c. as well to render it, in some degree, fit for the perusal of other practitioners besides those of the army, as to explain more fully the different subjects which offered themselves to my consideration.

It may also appear to some, that I have often dwelt too long on minutiae; but they will please to observe, that what may seem trifling to the settled practitioner, may be matter of much importance to the regimental surgeon; there is no occasion to illustrate this at present; it will be evident to the reader when he considers the regimental surgeons situation, and if he can but for a moment suppose himself in it.

I have endeavoured to show, that the regimental practice partakes almost *entirely* of
that

that which is allotted to the physician; hence will appear the propriety of inculcating to him the necessity of a liberal education to discharge his duty with *fidelity*, nay, with *innocence*, and without *criminality*. I have treated pretty fully and freely on the subject of intoxication. For this I hope I cannot incur censure, when the daily conviviality of a military life is considered, and the danger then of administering medicines, should some unguarded hour of hilarity induce this condition.

My cautions on the careful dosing of medicines may in like manner be thought superfluous; but I would hope, that on reflection, it will not only escape condemnation, but be thought a proper subject to be handled in a work of this nature.

The utility of experiments when conducted with care and prudence, must be obvious to every one; and I flatter myself no apology will be thought necessary for inculcating an attention to this part of the practice of medicine. What I have said relative to the medicines

cines to be kept in the medicine chest, may be considered as more exceptionable: I confess it is far from perfect; but I have given a sketch of such as I have, from time to time, used, or which I should have had recourse to, if they had been in my possession; for it is not always we are well provided. But for this imperfection, I must rely on the medical reader's candour to excuse, and the army practitioner's ingenuity to supply.

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IN this Edition I have made various additions, which I hope will be found of some importance: these would have been still more numerous had my health at that time permitted. I trust however it will be found that nothing material for the young army Surgeon's consideration is omitted; and that there are several things also which the veteran in army practice need not disdain to peruse. In some parts I may appear prolix, and thus have rendered my observations less interesting to the lovers of elegant composition. But I had rather be minute than defective; and I hope in this I shall escape the readers censure, when he perceives it is the young and inexperienced in military medical duties that my work is principally calculated to instruct.

Among other additions I have given a description of a *Tournequette* lately improved, and brought into use. It may be, perhaps, more known and its application more common than I am aware of; there can be no harm, however, in laying it before the reader; he that is acquainted with it may pass over this part of my subject: and such as have not before seen this Instrument, will doubtless think it proper to provide themselves with it, and recommended them, as I have ventured to do, as a part of a soldier's accoutrements on
actual

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actual service. I am of opinion regimental practice is capable of great improvement; but much cannot be done unless Government holds out better encouragement to those engaged in this line.—The time, it is to be hoped, is not far distant when men in power will turn their attention to this subject, and while they demand a strict performance of the duties of the office, will think it necessary to place the office itself in a more respectable point of view.

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THE

THE DUTIES
OF A
REGIMENTAL SURGEON.

CHAPTER I.

INTRODUCTION.

IT is an old remark, and, I fear, not the less true for its antiquity, that more men perish in the regimental practice from the want of proper medical care, than by the sword; or, in the words of an ingenious author, "More die there by the lancet, than the lance."

If this be true, it is surely lamentable, and what concerns the state not a little, since the reformation, if any is ever to take place, must, in a great measure, proceed from thence. New regulations must be made in the Surgical department, and better encouragement

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held out for the performance of this part of the public service to those who engage in it.

It is with some degree of diffidence I venture to throw together a few thoughts on the subject. I wished to have seen it undertaken by some other better qualified for the task ; but, since none has yet appeared to plead the poor soldier's cause in this respect, I shall make the attempt. Others, perhaps, may be induced to follow the path, and turn their attention this way, whose abilities in stating, as well as opportunities of knowing facts, may justly give them pretensions above me.

But it will still be a sufficient satisfaction, if I can become the agent, though in ever so humble a degree, or distant point of view, in removing a common evil, and producing some public good. The few years, however, I have served in a military medical capacity have furnished me with some opportunities for observation on this head.

I would not wish in these remarks designedly to drop any expression that could give offence to a single individual. Far be such a disposition from me ! at the same time, I shall point out with fidelity, and without fear, whatever appears to me capable of improvement,

provement, as far as my knowledge of the subject reaches. The ingenious and liberal-minded surgeon will applaud, not blame me. The approbation of men of this disposition I shall always be ambitious to obtain.

Each regiment, as well militia as regulars, is allowed a surgeon, as he is termed, and surgeon's mate. Their business is to attend to the diseases of the men at all times whenever it is judged necessary. For this service the surgeon is allowed four shillings a day; the mate three and sixpence. But, out of this are levied from them considerable duties: to pay these, daily stoppages are made, for such is the custom of the army: from the surgeon a shilling, and from the mate sixpence a day. This makes their subsistence equal, so that each is limited to a guinea a week; and on this they must subsist as well as they can.

These stoppages, however, amount to more than the duties, but the overplus, or clearings as they are called, are never regularly returned at the end of the year. Instead of this, it most commonly happens, that the clearings of the first year's service are not paid till after the third, and sometimes even

later. When they are most regularly remitted, it is never sooner than after the second year. The stoppages subtracted from the surgeon's pay amount to about five guineas a year, and those from the mate somewhat less. Some of these are for useful and laudable purposes, and are not to be regretted: others less so, and should not exist*.

The surgeon and mate are exempted from all duty, as it is called, in the army; such as mounting guard, attending court-martials, and such like; their charge alone being confined to the sick. They rank as regimental staff-officers, and are considered as an appendage to the corps. In the line of actual subordination the surgeon ranks not only below the youngest ensign, but the quarter-master and adjutant; and the mate again below the surgeon.

The surgeon receives a commission signed by the secretary at war, or, if abroad, by the commander in chief there, who has authority to grant it; the mate only a warrant signed by the colonel of the regiment into which he is about to enter. This subjects him

* I mean here the fees of clerks beyond their just poundage.

him to some inconveniences from which the surgeon is exempted by having his commission from a superior power. But of this we shall speak hereafter.

The surgeon or the mate must be present at all regimental punishments, *i. e.* at all times when any of the privates are, for certain misdemeanors, sentenced to be flogged. Their business here is to watch the suffering delinquent attentively, and to order him from the halberts whenever he is thought in danger, whether the sentence of the court-martial be altogether executed on him or not. In this the commanding-officer has it not in his power to controul him, if he thinks it expedient to assert this right of opinion and authority.

The surgeon and mate are obliged to attend field-days; their business in the field is to give assistance should any accident take place. For it sometimes happens that the men cut their hands with the flints on firing their muskets; sometimes with the bayonets, in the hurry of returning them in keeping their motions; and sometimes over fatigue renders them unable to finish the exercises of

the day, and such like ; when it becomes their business to see them taken care of.

Every regiment has an hospital for its sick, provided a house for that purpose can be procured in the place where they are quartered. To defray the expence of this, government allows about thirty pounds sterling per ann. in some regiments. I believe, indeed, this is the allowance in most. If there be any overplus, it is applied to the purchase of wine for the sick, utensils for the house, such as dishes, spoons, chamber-pots, &c. Out of this, sixpence a day is also paid to a nurse in some regiments, an indispensably necessary servant for an hospital.

To supply medicines, each private pays a penny a month ; each non-commissioned officer a penny three farthings : the non-commissioned officers I call the drummers, corporals, and serjeants. At the late war establishment this amounted to about eighty pounds nine shillings and sixpence per annum in six hundred and thirty-six rank and file. The present peace establishment reduces it in several regiments to about ten pounds*. The amount

* I am uncertain whether the peace establishment of every regiment of foot be reduced to an equal standard. As the full

amount per man, however, is the same, though the mode of collecting it has lately been changed. In the regulations of the army, printed in 1783, we find this alteration is made, viz. that in a regiment now, whose companies are at fifty men or under, seventy pounds a year is given to the surgeon in place of pence-money, and in regiments of a greater complement a proportionably larger sum. Besides this, when the regiment is encamped, government sends him a chest of medicines as an addition to the medicine money.

The complement of many regiments in the late war among the regulars, was six hundred and thirty-six privates, forty-eight corporals, twenty-six drummers, and thirty-six serjeants; amounting in all to seven hundred and forty-six. With respect to the sea service I am entirely unacquainted; therefore, it is to be understood as exempted from any remarks in this essay*.

B 4 I shall full complement in time of war was different in different regiments, the peace establishment may be likewise different. In a regiment of 636 rank and file, with the non-commissioned already mentioned, the peace establishment has reduced them to 400.

* It is to the foot service I chiefly confine myself.

I shall now state the number in the sick report of a regiment of the above complement at one hundred men, one day with another. But we are to observe, it seldom happens that it is compleat. It is as frequently found with less than the half; and, perhaps, at an average, for twenty years, we might state it at this. We are to remember, however, that out of this hundred men returned to the surgeon, not one half, one week with another, actually require any medical assistance whatever. For it is the mode of proceeding to put all that are found unfit for duty, whether they are sick or not, into the surgeon's list. Such men being in the number of the regiment, and receiving pay, must be accounted for; and there is no other place to arrange them in daily returns to the commanding officer, or those to the War-office, so convenient as this.

If, then, it be allowed, that, at an average, the complement of the regiment being compleat, as already mentioned, a surgeon has never more than fifty men to visit daily, his fatigue cannot be so great, when at the same time we consider, that even out of this number, cut fingers, and trifling blotches on the legs,

legs, not to mention some that want shoes, and others that want other necessaries, form, perhaps, one third of them. But should the regiment not be even half compleat, following the same proportion, his patients are reduced still to one half less; so that at an average, they are not above twenty-five.

It will hence appear, that he has leisure sufficient to pay proper attention to the really sick; to reflect on the nature of their diseases; to weigh the symptoms; to turn over authors who have treated on the subject; to compare it in his mind with similar cases he has met with in his practice; to observe the exact effects of the medicines exhibited; and to change or continue them as the cases may require.

Those who attend the sick in large hospitals, not only in general visit a much greater number of ordinary house-patients daily, but over and above attend, perhaps, an extensive private practice. It is the distance, for the most part, that our patients dwell from one another, that causes the fatigue of the profession, not their number when placed under one roof, as in an hospital. Hence the surgeon of a regiment can have very little cause to complain of great fatigue, whose number of patients, by our calculation, which

is rather above than below par, are so few; and, if not in his hospital, are within the limits of a town, perhaps, comprized within the small compass of a mile; but should it be even three or four, to visit them can never be said to engross all his time; and, more especially, when the duty is divided between him and the mate, on whom the greater share of the business generally falls.

The reason why I have entered into this discussion, and pointed at the limited number of sick in a regiment, will appear in another part of these observations, where it shall be our business to shew, in as clear a light as possible, that the appointment of mates is unnecessary; and that, by a different regulation, wherein they shall be altogether excluded, the regimental practice may be better attended to; and not only so, but the office of a regimental surgeon gain more respectability.

CHAPTER II

OF THE DIFFICULTIES ATTENDING A REGIMENTAL
SURGEON'S STATION.

AFTER what has been premised, we shall now enquire a little into some difficulties which a regimental surgeon has to encounter in the right discharge of his duty. These indeed we shall find by no means few, and if he be a man of a humane and tender disposition, are such as will cause him many hours of uneasiness and disquietude.

For surely it is matter of great concern, and must press not a little on our feelings as men, to see a poor unhappy patient destitute frequently of almost every thing fit for his situation; destitute of a proper bed to lie on; destitute of lodgings properly suited to his present distress; destitute of proper food or cordials to support nature in its languishing state; and, in a word, destitute of almost every thing which he ought to have, which his present distress loudly calls for, and which are often absolutely and indispensably necessary for his recovery.

That this is no exaggerated description will appear evident, when we consider the houses the soldiers are billeted on; and the manner in which they are often used in towns where the regiment is quartered, when hospitals cannot be hired.

The billets in England, and, I may add, in Scotland, are always in public-houses; and the landlord never fails to look on the soldiery not only as a nuisance, but as a great drawback on the profits of his business. They are treated coldly, and frequently lodged poorly. The places allotted for them are generally some uninhabited garret or lumber-room, where the very air they are obliged to breathe is so vitiated, as, at first entrance, considerably to affect a person unaccustomed to it.

If the landlord has no garret, he has, perhaps, some backhouse, where he erects a few dirty beds. Such places are set apart for the soldiers, because fit for no other use. The clothes on their beds are frequently so scanty, and so much worn, as even in summer to be almost unfit to keep them warm, and should it happen to be cold winter weather, altogether insufficient. This often brings on catarrhal affections, and lays the foundation of other
more

more violent diseases of the inflammatory kind, not unfrequently ending in death.

It must be obvious that this will affect the surgeon in his practice; for, we need not add, that while the cause exists, the disease must continue. The most judicious plans of practice may be laid down, but, under such circumstances, it will be next to impossible they can prove successful.

That this is a true state of the fact many a poor soldier can testify, and, on my professional visits to them, what I have too often had occasion to lament: the more so, as it was not in my power, in this respect, to afford them relief. The truth is, that many a prisoner in his cell is better lodged than we find many of the soldiery in billets; yet will they seldom complain, if their situation be at all tolerable. If complaints, indeed, are made to their officers, redress, as far as can be had, is given. A message is sent to the billet-master to desire him to change the billets of the soldiers so treated: or oblige the publicans to furnish them with better accommodations; but this is seldom productive of much good: for should the magistrate interpose, which sometimes is the case, and the landlords be reprimanded

reprimanded, perhaps fined, and thus compelled to give them better usage, ill-nature generally takes place on both sides; the landlord and his family still prove haughty; the soldier retorts it by behaving improperly, and taking every stolen opportunity of committing misdemeanors. Thus neither party is pleased. The landlord abuses the soldier—the soldier the landlord. Those necessaries with which he is obliged by law to furnish the soldier, are not only given with reluctance, but are often of the worst quality.

Their small beer is what I have chiefly now in view; for on these, as well as many occasions, it is generally vapid, and unfit to be drank. Hence it frequently becomes the cause of cholics, diarrhoeas, and other complaints of the bowels, that prove not a little troublesome to remove; and cannot be completely cured till the cause ceases, and a change is made in this article, which is not always in the power of the surgeon to accomplish, and who can only attempt a remedy by a complaint to the officer, which as often fails of the end in view, as it obtains it.

We must acknowledge that the publicans are greatly oppressed, especially in time of war,

war, by the military. It appears very unfair to burthen this class of his Majesty's subjects with so heavy a tax, while all other descriptions of men are exempted, and while they at the same time pay their just proportion of the other taxes of the state. I speak here of Great Britain; it is different in Ireland; the distribution of billets there is more equal: private houses as well as public are subject to them.

With respect to the publican, he surely has no profit by a soldier's custom. Such as hold this plea, have built their reasons on a wrong foundation. His pay, it is well known, is barely sufficient to purchase him necessary food. Let me suppose each soldier spends three-pence daily in his landlord's house, which is half his full pay, even this is no equivalent for the trouble and expence he proves to him. I believe, however, it will be readily granted, this is a sum no private soldier can afford to spend.

That soldiers frequently get drunk, I acknowledge; but this is not always at their own expence. They are often jobbing through the town, when not on duty; their wages for this is sometimes a pot of beer, or the

the like : this may or may not be at their billets, just as occasion serves, or as the landlord has a job for them.

I remember to have heard a publican declare, that his soldiers (I have forgotten the number he had billeted on him) cost him no less than thirty pounds sterling a year in small beer alone *. Let us state it even at half, and it is still a heavy tax ; and when we consider, that they are furnished with other necessaries likewise, it becomes a farther oppression. This man kept a large inn. Small public-houses are, however, proportionally burthened. In a country such as near London, where fire-wood and coals are dear, the article of fire itself is no small tax during the winter. This the soldier is allowed, and this he will have, if possible.

It has appeared to me ever since I knew any thing of the army and its customs, that there are other descriptions of men on whom

* I have been in inns in the West of England where 52 soldiers, and some officers, were billeted on an innkeeper at once : not for a night, on a march, but for a continuance. If each of these was paid out, at 1s. a week, it would amount to 21. 12s. weekly ; but, from 1s. 3d. to 1s. 6d. is a more common price in those parts, when soldiers provide themselves. This is an enormous tax : it is, however, in times of war that publicans are so burthened with them.

whom justice would equally require soldiers to be billeted. The butcher and baker I have chiefly now in view. These receive more of the soldier's pay than the publican : for the soldier *may* drink, but he *must* eat. It will not be an over rate if I say, a soldier's bread and butcher's meat stands him in two shillings and two-pence a week, *i. e.* half a pound of meat a day at two-pence, which amounts to one shilling and two-pence a week ; and three halfpence a day for bread, which is ten-pence halfpenny. I might rate it at two shillings and four-pence a week. The price that the lower public-houses board their soldiers at (for some do board them) is four-pence a day. This is much more than a publican gains by a soldier. If this be true, it follows, that butchers and bakers, having equal, if not superior gains by the military, should be equally subjected to the tax of billets.

But there are inconveniences yet remaining that attend soldiers always billeted in public-houses, and obliged to live there : I mean the temptation to drink. We know, indeed, they will drink whether they dwell in public or private houses ; but in the former the

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temptation is greater than in the latter ; for, being so convenient, if they have a penny they will spend it in liquor, though they should not possess another to buy them bread.

In a butcher's or a baker's house these temptations would be less ; and another advantage, I apprehend, would follow : they would be less liable to contract debts. For though the military laws be so strict as to oblige the commanding officer, on coming into new quarters, to send a drum round the town to cry down the men's credit, beyond a day's pay, and this on pain of being cashiered if he neglects it, yet many of them find means to get more credit than they can discharge. The consequence is, that on leaving the town they leave behind a bad name, and are the cause of bad usage to those that succeed them ; but this is not all—this very thing is the cause of desertion.

For should their debts be discovered to the commanding officer, and they put on stoppages for the purpose of payment, the pittance they now receive being insufficient to purchase them meat, they are, I may say, forced

forced to desert; they cannot starve; the cravings of nature must be satisfied.

But it is not the private alone that is the sufferer by constantly living in a billet; the officer is in like manner subject to the same. He experiences many inconveniences from it: he must buy his food at almost double the sum he would pay in a private family; for he must pay at the common rate of the traveller, who, it is well known, pays double the value of every article he needs, while on his journey. This is exactly the situation of the officer. If he is frugal, he will receive bad treatment; at least neglect will be his lot; and should he expend even double his subsistence, he will seldom receive from the master of an inn over civil treatment*.

In a private house he would, in a great measure, be exempted from this; his room or billet would, in all probability, be more commodious, and his board would stand him in considerably less, provided he chose to eat at his billet. To a subaltern this is no small consideration.

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* The publicans sometimes tell the officer, that by his custom they expect to be reimbursed for the expence and trouble of the soldiers billets: this I have myself been told,

consideration. But I have dwelt long enough upon this head. I shall now return to the farther consideration of the difficulties attending a surgeon's practice when the privates are in billets.

Let us suppose him to have several men ill of dangerous fevers, and no hospital to remove his patients to; for this really sometimes is the case, from the great dislike and aversion people in general have to let houses for such purposes.

When this happens, he must attend them at their billets. I have already pointed out the frequent inconvenience of these even to persons in health: What, then, must they be in sickness?—bad beyond description. Perhaps the chief part of the cure consists, in these cases, in pure air. But the poor soldier is mounted up in a close, foul, dark, garret. At other times again the billet is pervious to every blast. Extremes are equally bad. What can the surgeon do in such a dilemma, with so powerful an opponent to his measures?—alas! but little. His prescriptions may be judicious; his attention great; and his attendance regular; yet he will

will only have the mortification of seeing his advice frustrated, and his patient every hour sinking, till death in a short time closes the scene.

Were examples necessary to prove what is here advanced, I might quote several ; but I shall content myself with hinting at one case only : here the patient's life was lost from no other cause than the badness of his accommodations in his billet during a typhus, which at first did not put on a more than ordinary bad appearance ; but every thing conspired to render recovery impossible in the progress of the disease. It was in the unfavourable spring of 1782, some time before the appearance of the influenza which in May and June spread over the kingdom. I think it was in the month of March. The season was extremely intemperate, and the billet among the worst I ever saw. It was perfect mortar around his bed, which stuck to the feet the same as if in the streets ; and the room pervious both to wind and rain. In this sort of apartment were several beds, occupied by the other soldiers. No change of billet could be procured ; for no publican would receive a sick man, for fear of contagion : neither, as yet,

could any one be prevailed on to let a house for the accommodation of the regimental sick. After this poor man's death, and some other misfortunes of almost a similar nature, when the commanding officer determined to have a house for an hospital, if it was to be purchased for money, and one was with difficulty procured, it was not better than the billets: even worse than several of them. In all such cases the best medical treatment must ever be frustrated.

Another difficulty that the surgeon, perhaps, labours under, is the want of a good, careful, and tender nurse. A very great deal depends on this servant. It is altogether impossible for the surgeon to be present with his patient on all occasions, when he wants such assistance as a nurse-tender can give; and, was it even convenient, and he willing, he cannot be so useful in this respect as a nurse. She ought to be with the patient on all occasions, and almost constantly; since it is her duty to administer both drink and medicines with care and punctuality; the last, at the exact times the surgeon orders them; for should any neglect happen in the exhibition of the medicines, if not productive of worse effects,

effects, it may at least retard the patient's recovery. Suppose them neither given in the quantity prescribed, nor at proper intervals, the effects which the prescriber expected may not follow; and should the neglect be kept a secret from him, it may produce an unnecessary change in the plan, to say no worse, and in the end, perhaps, with no advantage, if not detriment to the patient. Every one much conversant with the sick knows the inattention of the generality of nurses, for sometimes both his practice and reputation suffer by it.

Though I have mentioned here a female nurse, in the army this is not always easily procured. Indeed a careful *orderly*, or man, appointed to this duty, will answer tolerably well; but he is to continue, not to be changed every week, or less, as is sometimes done, since it takes some time to qualify him for the office. What in the army is stiled a nurse, and has already in this work been so denominated, is more properly the housekeeper: she cooks and caters for all the patients in the hospital, makes drinks, and prepares other medicines that require culinary treatment. She should have a command, and be allowed

an authority over the other *orderlies*, to keep them steady to their respective duties.

And, farther, with regard to the chamber-nurses' or orderlies' duty : great attention is to be paid to the patient's calls of nature ; he is not to be left to his own feeble efforts to rise to the pot, &c. as I have too often seen the case ; such exertions in certain acute diseases, not to mention the cold that he will catch, may be very detrimental to his recovery ; or, through want of ability, he may wet, or otherwise dirty himself ; all which, by the presence and assistance of the orderly, will be prevented. Attention is likewise to be had even to the manner in which he lies in bed, whether he lies in an easy position or otherwise ; attention to the state of his tongue, I mean his mouth, lips, &c. to keep them moist, soft, and as clean as possible ; if his teeth fur, or become encrusted, to wipe them frequently, and several other minutiae of this nature, which the surgeon may give him in charge, and ought by no means to be neglected. And if, at the same time, he has blisters open, or other sores, either accidental, or made as an assistance to his recovery, attention to keep them well dressed, and as easy to his feelings

as possible; otherwise an irritation will be kept up, which may considerably disturb the system, not to be allayed till this cause is removed. For this is more the nurse's than the surgeon's province, since it may not be in his power to visit him above twice a day at most, while the nurse or orderly is, or ought to be, constantly present, and from habit, and practice in such sort of attendance, which, to some, may seem "trifles light as air," but, in reality, are of great moment in the recovery of health, she becomes far more expert in, and tender, than either the surgeon or others less accustomed to such things generally are. Attention must likewise be paid to the sleep which the patient gets, and its duration; whether sound and refreshing, or only a sort of coma-vigil; whether with the eyes properly shut, or half open; attention to the state of his intellects; whether his ideas be confused or clear, on his awaking from sleep; with many things of this nature, absolutely necessary for the surgeon to know, and for which he must entirely rely on the veracity and vigilant care of the nurse: for an error here may be called an error in the first concoction, and may lead him astray in his subsequent

sequent prescriptions. It is from the relation he receives in this respect that he will, in a great measure, be guided, and either continue, or change his mode of proceeding, or from which he can form some prognostic of the future event.

Instead, however, of such nurses, or chamber attendants, the regulations of many regiments only allow what is termed an orderly man, *i. e.* a soldier from the same company with the patient. What attention can in general be expected from a clumsy, heedless soldier, ordered on a duty he greatly dislikes from its nature, as well as from the confinement to which it subjects him? For the most part, he is only anxious for the expiration of the time he is obliged to remain on this duty, which is twenty-four hours, for he is often changed daily.

But suppose him possessed of feelings enough, and ready to do as far as lies in his power for his sick comrade (I am ready to own I have found many deserving the highest commendation here) that he is not only willing to attend to the directions given him, but sedulously puts them in execution; and who, in a few days, might be tolerably well qualified

fied to answer the place of a female ; yet his attendance is only a day. Next comes another, perhaps as brutish as this man was gentle and tender ; into whose head all the men on earth could not instil a single idea of the duty he is to discharge ; or, at least, who will pay no more regard, than if he did not comprehend it. It is well, indeed, that the continuance of this man is only for a day. But, alas ! in the doubtful period of a fever, what changes for the worse will a day produce, where bad attendance is given, or, perhaps, the patient altogether neglected ; changes which the most judicious of the faculty may not afterwards be able to obviate !

Though the surgeon gives him charges, repeated charges, relative to what he is to do for the patient, and even with threats of punishment, if neglected, yet, as soon as he is gone, will this fellow either go about his own amusement, or, if he finds any one to give him liquor, or possesses any money himself to purchase it, hasten to get drunk in the house (I speak now of the sick in their billets) never once, perhaps, thinking more of the patient till the surgeon's next visit, or till he be relieved next day by a third man of the
same

same company, and so on, till the unfortunate sufferer either dies, or nature gets the better of these obstacles, and recovers him. Such is the attendance given the sick in billets; the attendance in the regimental hospital, when under the same regulations, is oftentimes little better; and such are the difficulties that oppose the surgeon's successful practice!

Should he be detected in this neglect of duty, and sent to the *black hole**, what purpose does it serve? The next that comes, perhaps, acts little better; or, suppose the contrary, more mischief has already been done the patient by the sottish idleness of this man, than can afterwards be retrieved. Here the surgeon's character may be at stake, and his patient lost; while he has not only this to lament, which every man of feeling and humanity will bewail, but the commanding officer, also, may blame him, when he little deserves it. This, should it happen, is heaping Pelion upon Ossa, grievance upon grievance: and this, surely, is no small misfortune
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* A place of confinement for slighter misdemeanors in the army.

under which a regimental practitioner labours. Nay, if he wishes to discharge the duties of his profession as an honest man, it is what must give him many hours of bitter regret, and sad mortification.

Though I have painted the situation of billets in this unfavourable light, as what most generally happens, yet here, likewise, we find exceptions. Some of the publicans pay much greater regard to the soldiers billeted on them; and should any of them fall sick, act towards them with much tenderness and humanity. It is in this walk of life as in others; there are to be found in it a variety of dispositions.

As far as my observations have yet reached in this way, the small public-house keepers prove the most civil, and are the most tender to their soldiers. One reason I would give for it is, that the soldier and the people he is billeted with are more on a level in point of rank, and hence more familiarity takes place between them. Familiarity here does not, as the proverb has it, breed contempt; on the contrary, it fosters friendship, and a strong attachment is frequently formed. Where this happens, the soldier lives as happily as
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the people's circumstances and the nature of the billet will afford ; and he may be said to "fare sumptuously every day," when compared to many of his fellow soldiers. He eats out of the same dish, and drinks out of the same cup with his landlord and family, and, often, at little or no expence.

Another reason I would assign is, that many of these people have sons in the army ; this again begets sympathy ; they are kind to the soldier in hopes it may be repaid to their children, in like manner, living at the mercy of others in some different part of his Majesty's dominions. It is parental tenderness ; it is piety ; and may their wishes be fulfilled, and their sons placed among people equally disposed to hospitality and humanity !

How happy have I been on finding a sick soldier quartered on such a house, where the mistress was his nurse, and who cheerfully administered to his relief, as far as her little wealth would permit ; nay, often, with an anxiety and affection similar to a mother. Here my *orderly man* gave me no concern. My directions were never given to him, but to this good woman, who would never fail to put them in execution, either herself or
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by some of her family; or when family affairs prevented, was such a check on the *orderly*, by threatening a discovery if he neglected, as made him more steady in the performance of his duty.

Well compounded cordials, or some light food, properly prepared and fitted to the patient's condition, is frequently a great help to keep up his strength, and assist in forwarding his cure. Can such nurses as we have been describing under the name of *orderlies*, prepare any thing of this kind, supposing them to be furnished with the materials, which a stomach so disordered, so weak, can either relish or digest? A pudding of any kind they know not how to make; for there is but little variety of cookery used among the privates. Even panada, or water-gruel, which require the least skill in preparing of any food for the sick, is truly but ill managed when left to an *orderly's* cooking. In the greater number of billets, whatever of this sort is necessary, he must prepare, or the patient must want it.

The entire want of cordials is another difficulty which opposes the surgeon's endeavours. I must not say he has it not always in his power to compose them for his patient; but

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I may say, he too seldom does compose them. I hint now at the use of wine. To speak the truth, there is no fund for this purpose; and if cordials of any kind, attended with expence, are ordered, they must either be charged to the sick man's account, or the surgeon must furnish them out of the medicine-money. Out of this they undoubtedly should come, if it will afford it:—but of this subject hereafter.

And with respect to wine, one of the best of all cordials, the fund out of which it is to be procured is so small, that little can be afforded. We said before, that in many regiments thirty pounds a year was the sole allowance for hospital hire, for a nurse, and for wine. The nurse's (housekeeper's) wages, if a female, which should always be preferred, will absorb nine pounds two shillings and sixpence per annum of it; and the hospital,* with fire and utensils (the hire must depend always on the place and conveniency of the house) will leave little of the remainder. Half a guinea a week I have known paid: it is true,

* In some towns the corporation furnishes it free, and with coals also. It is so in Newcastle upon Tyne. This is a very rare occurrence.

true, we find it sometimes cheaper, but this must ever depend on circumstances.

A bottle or two of wine in some cases proves of little service. Many cases have occurred in practice, where a bottle or two a day, perhaps, for more than a week's continuance, is too little an allowance. A bottle or two of wine in a low nervous, or in a putrid fever, may prove of no effect, when, perhaps, if continued, it might be the chief means to stop the progress of the disease; or, at least, to enable the patient to bear up the better under it, by the support it affords to the failing *vis vitæ*, and the tonic power and energy it conveys to the nervous system. Yet, if the surgeon goes beyond three or four bottles in the course of as many weeks, if the fever and the indication for wine continue so long, he will seldom fail of receiving a *caution* to be sparing in its use; and yet, as we have said, the patient's life is frequently owing to the liberal, though judicious use of wine.

It is, not however, an uncommon thing, at least in a regiment wherein I served, for the captains to order wine, at their own expence, for the sick men of their respective companies. In this, the gentlemen of this corps have great
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merit.

merit. Perhaps there is not another in his Majesty's service, where humanity and attention to the welfare of the privates under their command are more conspicuous; nor is there scarcely to be found a man of greater humanity and tenderness towards them than their lieutenant-colonel. Where such a disposition is found in a superior officer, it has doubly happy effects, as the example is diffused among the inferior officers.* It is with great pleasure I can bear this testimony with regard to the present officers that compose this corps. Thus far for the inconveniences arising from bad billets, both to the privates themselves and to the surgeon.

We shall now enquire whether the regimental hospital be altogether free from inconveniences. That it is not, I know too well from experience. Were it always to continue in one place, the regulation of the hospital would be easy, and improvements might occasionally be made; but this neither is, nor can be the case in a marching regiment. Their short stay in one place subjects them to many inconveniences besides this; but these shall be passed over, as foreign to our present purpose.

* Tenth regiment of foot.—1782.

purpose. Inconveniences indeed, unless they become very great hardships, are the expected lot of a soldier, and to which it is his duty to submit.

But to return to our subject: let us now suppose a house is procured for an hospital, tolerably commodious. This however, is what seldom happens. For though it has happened in the present, it will be a thousand to one, if it happens in the next quarters into which the regiment marches. If it be small, our patients are crowded, and the half of our sick cannot be admitted. I have seen it consist only of two small rooms, one above another, with the kitchen, which made the ground floor; and in each of these no fewer than twelve men, though the room did not measure above twelve feet by fifteen,* the place being almost one continued bed, without spaces between, instead of distinct beds. Into this crowded spot the worst cases only were sent. Some chronic cases, some acute fevers, punished men with their backs suppurating, and emitting a smell intolerable even to people in health. For when an officer finds a man

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of

* It is seldom so many sick, however, are found at one time. The regiment was upwards of 600 strong.

of the company unfit for his duty, whatever be the nature of his complaint, and takes it into his head to send him to the hospital, though it may be the most improper place possible for him, under the present regulations of the army, the surgeon must admit him, if it be insisted on; and we cannot at all times find officers capable of reasoning medically. The reader may judge what comfort it must be to practice medicine here, and how prejudicial to the recovery of those in acute diseases, as well as dangerous to those under chronic complaints. In this house, also, the ceiling was so low, that a man little above six feet high could but just stand upright under it: this made it still worse, from the greater confinement of the air.

Confined air itself is the cause not only of sickness, but death among troops. The nature of confined air, and chiefly such as has been frequently breathed without changing, is at this day so well understood, that barely to mention it is sufficient. Thus says the judicious Pringle: "Among the causes of sickness and
 " death in an army, the reader will little expect
 " that I should rank what is intended for its
 " health and preservation, the hospitals them-
 " selves;

“ selves ; and that on account of the bad air
 “ and other inconveniences attending them.”*

On the other hand, if the house be penetrable to every shower, which regimental practitioners also but too often experience, even in summer, it is poor accommodation, and in winter intolerable ; nay, sometimes as bad as the worst billet. The improvements we can make for the short time we expect to occupy it, are either trifling, or none at all ; for since a few months is the longest date we can promise ourselves in the same quarters, the commanding officer has little encouragement to expend money, the good of which must be chiefly reaped by the proprietor.

I have seen the house sometimes so smoky, that a fire, even in the the depth of winter, could not be kindled, without the patients being in danger of suffocation. On this account, it was even with some difficulty that victuals could be prepared for them. This was particularly the case at Tinmouth. When fevers were in the house, during the time of dressing meat, the sick felt an uncommon uneasiness from the smoke, which was so

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* See also a paper on the bad effects of confined air, in Med. Transf. vol. 3. by Sir Geo. Baker.

thick and gross, that it could almost be felt. Under these complicated evils I was obliged to practice in one of the worst fevers I have experienced in the army.

The want of a fire altogether to those under some particular complaints not requiring confinement to bed, is a very chilly and cheerless circumstance. It is scarcely tolerable to sit without a fire in such inclement weather as we often experience in the changeable climate of Great Britain. Here the nurse, or house-keeper, and the orderlies, are all discontented, and constantly murmuring, and laying their grievances before the surgeon. What can he do? He may regret the situation along with them, but he cannot change it; for, perhaps, there is not another house in the place that can be procured for the purpose.

In this situation, the house-patients whose complaints do not require them to be confined to bed, are under great temptations to drink, provided they have address enough to procure liquor, and have wherewith to purchase it, without any regard to the nature of their complaints or the medicines they are taking. It is not, however, always they have their pay at their own management, as when

when men are sent into the hospital, their pay is put into the hands of the hospital serjeant, who markets for them. This is a wise regulation. Most of them, however, have followers, who take stolen opportunities to supply them with drink; for though a centinel be constantly planted before the door, to prevent them from leaving the house without the surgeon's permission, and, at the same time, to keep improper persons from entering, yet they, not unfrequently, find means to bribe him, who, for his share of the spoil, will wink at what his duty strictly bids him repress. These evils are not, either by themselves or the centinel, considered as of much magnitude; yet, to many patients, they are matter of great moment.

It frequently happens again, that what are called *maligners* are obliged to be received into the house, *i. e.* such as are idle; who, in order to keep from duty, feign themselves sick. Such ought to be shewn no indulgence; but a strict watch should be held over all that are thus suspected, and, if found out, proper punishment inflicted. These, for the most part, are such as prove irregular, and create more trouble in the hospital than all

the really sick. But if the centinel permits them to wander out of the house, or liquor to be brought in, it is long before the imposition can be discovered, though the surgeon be ever so vigilant. For, so great will be the conspiracy among the patients, that they will not readily discover one another: like other conspirators, however, they sometimes quarrel among themselves, when revenge dictates discoveries, and the truth at last comes to light.

This is a grievance, though it may be looked on by some, as of less consequence than others we have mentioned: much of this arises from bad hospitals. Yet, after all, though the lazy and imposing should in this manner prove troublesome, a soldier should never be turned out on the invidious tale of another, or from a hasty fit of passion, lest a man really unable to undergo the fatigues of his duty should thence be subjected to it, at the hazard of his life. To blame my brethren here, might in me seem invidious, and I am unwilling to do it. 'Tis true, I have been told of serious errors of this nature, but none ever came immediately within my own knowledge. The adjutant of a certain regiment, a
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man of strict veracity, and who has served most of his life in the army, related to me an instance of this kind, which happened some years previous to the late war. Two men came, it seems, into the hospital, one of whom the surgeon, after some slight examination, pronounced an impostor, and dismissed him to duty; the other was admitted. It is probable he had received a hint that one of them was a *sconcer*; but the consequence was not so trivial—he mistook the person—and received him whom he might have dismissed without danger! it would have been more for his credit had he admitted both; for, like giving charity to an impostor, lest we should mistake, and injure a deserving object, it would have been better to have acted in a similar manner, till a more proper opportunity had presented to discover the cheat. The man rejected in this case, as it turned out, was then in a fever, of which he died. I would be far from saying, this was the cause of his death; he might have sunk under the disease, even though admitted when he first desired; but the surgeon was censurable in as far as it appeared, how little pains he took to investigate his complaints. A man's behaviour

on these occasions should be judged of from his general character: if he has been any time in the regiment this is easily known. Some of the privates of good character will make it their boast, that they never missed a guard when it came to their turn; others never mount one but with reluctance, and, if possible, will find excuses on their duty morning, and feign complaints to get themselves reported sick. A surgeon should take some pains to know the characters of the privates. He will find his account in it. Nor is it so difficult a task under the strict discipline of the army.

The nurse, or housekeeper, of the hospital in some regiments, is a woman; in others a soldier, to whom this office is allotted as his duty. Since a great part of the business this servant undertakes is to dress the patient's meat, to prepare drinks for the sick, and to wash for them (for they should do this at a stipulated price) a woman is always to be preferred, where a choice can be made. Under her there must be one, if not more orderlies. I think, in general, there ought to be two: one to bring water, clean the house, and do other offices, more immediately about

the nurse ; and the other to keep the patients rooms clean, carry them drinks, empty their pots, run little messages for them, and such like. Besides, in acute diseases, when it may be thought expedient, to sit all night by the patient : one can relieve the other by their sitting up alternately. The nurse may have the care of the medicines prescribed, which are either to be administered by herself, or, under her inspection, by the chamber-orderly.

It is supposed the hospital is furnished with a proper set of beds, sheets, and bolsters of coarse linen. With respect to its colour, it is a matter of little moment : therefore, whether they are brown or bleached linen is immaterial ; but that they be strong, and close in the texture, is more so. I would prefer chopped clean straw to flocks, not only as being cheaper, but more wholesome, especially as the beds are so apt to get wet. The straw can be easily changed for some other, fresh and dry, and almost without loss of time : it is not so if they should be filled with flocks. The reason is obvious why I advise the texture to be close—lest the ends of the straw protruding through, might, by the sharpness

sharpness of its points, irritate the patient, and disturb him. The bolsters should be considerably wider than those I have seen, and which, I believe, were of the common size. We know how advantageous it frequently proves, to have the patient's head well raised. For a regiment of the complement already mentioned, we should not be provided with fewer than from twenty to twenty-five beds. Ten of these should be small beds for single patients, viz. for those in acute diseases, or under other complaints, where a bed-fellow cannot be admitted; the rest double, or so large as to allow room for two to sleep together. From the small and circumscribed bounds of a regimental hospital, it is impossible, if we have many sick, that all can have single beds; and since we have always several in the house that ail very little, or whose ailments do not prevent them from admitting a partner, we may safely, and it will be economy to lay them in the same bed. Besides, we should always have three or four spare beds, either for new patients, or to supply the place of those that may be wetted, or dirtied by the incapacity of the patient to manage himself, &c. I have sometimes used
two

two in a day ; for nothing is so prejudicial to recovery as a wet or damp bed. Some of these beds should be set apart for flogged men ; and these should always be single. I say, set apart, because, from the blood, suppurated matter of their backs, and the oil, unguents, &c. applied to the wounds, the beds are so stained, and sometimes hardened, as to be both unfit and unseemly, to lay under a man with different complaints ; so that, I think, it would be better to keep them solely for this use, with their blankets, sheets, and pillows. Besides, I have found some men who had a great aversion to them, merely from the use to which they had been applied. We need not fear they will lie by as useless lumber, unoccupied ; we shall find but too frequent occasion to use them, if the regiment be at all numerous. Every bed should have two good blankets, and a coverlet. We should guard those who do not ail much, against colds : if the patients under acute complaints feel the clothes too weighty, it is easier to diminish than add, provided we be not furnished with a supply for this purpose. These are conveniencies, however, we do not always find to this extent in an hospital ; the want

want of which may be some obstacle to the surgeon in his successful practice.

When a patient is so ill that it becomes necessary for one of the orderlies to sit by him, he undertakes this duty under the nurse's inspection. She makes a report of his behaviour to the surgeon on his next visit. This part of the discipline is commendable ; and, provided it be properly adhered to, is a good regulation. But, I am sorry to say, there are many abuses here, and when this happens, it is a real grievance to the surgeon, who must rely on the reports he receives. We find these too frequently a matter of form, and, indeed, often false : this they do to screen their inattention. They will answer yes, or no, to the questions asked, just as it suits them, or as they think may please the surgeon ; but if more minutely questioned, can give no satisfactory answers. Their false reports are worse than none, since they may tend to mislead the practice. He should, therefore, trust as little as possible to them, but endeavour to see, and examine every thing himself.

Another grievance which regimental surgeons often labour under, I cannot pass over here, *i. e.* the murmurs of officers, if men are

are not so soon cured of their complaints as their anxiety would have them. The length of time men are kept in the hospital, is commonly their topic when in conversation with the surgeon.

It is undoubtedly a laudable thing in an officer to pay a due attention to the privates he commands; to redress their grievances as far as possible, and to see that they are properly taken care of by those whose province it is; but this, or rather a shew of it, may be carried to a degree very troublesome, and far from commendable, respecting their medical treatment. I do not know what to term this:—it is not merit; yet something like it. I should be sorry to blame them for any thing which shews their care of the soldiers, but this may, and, I verily believe, is, over done by some; and, I fear, sometimes with little other view than to create the surgeon uneasiness. If he is found negligent, they surely cannot spur him too much; if diligent, and attentive to his duty in general, this is cruel, is reprehensible and unjust. It is often more a mark of their want of judgment, than care of the soldiery. I have always found young officers, who knew but little of their own
duty

duty from their short service, most troublesome in this respect. It would seem, that vanity leads such to act so, as it shews their superiority to the medical department in point of military rank, which seldom takes into consideration either age, knowledge, or other qualifications. I am cautious, however, of blaming officers on this head; for, whether or not it proceeds from real tenderness, it is better than more culpable neglect. It is like negative virtue, or the shew of religion; if it be not real merit in the possessor, it is an example to others, and may produce good effects. Yet I must apologize to those gentlemen, and candidly acknowledge, that such, for the most part, are the regimental practitioners of physic, that too frequently fill this office, that it is not without cause this custom prevails among officers—for a spur, not a curb, is often wanted.

We cannot expect to find officers possessing medical knowledge: this belongs not to their profession; nor is a want of it in any ways derogatory from their merit as officers and good soldiers; yet I have often thought, that if commanding officers knew something of physic, it would render them better judges
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when the surgeon did, or did not, discharge his duty as he ought. But this is an impossibility, for many solid reasons. If it could be found practicable, it would be frequently of service both to the surgeon and his patients. He could explain the reasons that retarded the cure, when the subject happened to be started, while the officer, on the other hand, would be the better qualified to guard against any imposition. For, as things stand, the surgeon has it in his power to deceive his commanding officer if he be so disposed, and thereby cover either his own ignorance, or neglect : and again, his commanding officer would not blame, where, perhaps, in place of censure, he deserved praise. These are also inconveniences attending a regimental surgeon ; but this, in some sort, may be said to attend every medical man's practice, as well out of, as in the army.

The commanding officer has much in his power, both in the medical and disciplinary walks. If the surgeon is a man of veracity, and otherwise diligent and informed in his duty, respecting the cure of diseases, he should allow him a great share of his confidence. According to the present footing on which

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surgeons

surgeons in general stand, they cannot be of half the use they otherwise might prove. Their rank is too low to give them consequence ; and, as was said above, rank alone is all in all in the army.

It is the opinion of a military author, and I heartily, in this case, concur with him, that if any regiment or corps has the fortune to have only one judicious, humane, and sufficiently able field-officer, it may always be wisely regulated, during his residence with it, and when he has the direction of the whole. More, he adds, is to be expected here from the lieutenant-colonel and major, than from the colonel, as it is but seldom he remains with the corps ; but where all three concur to this end, and are desirous of every useful information from literary men, as well as from those of their own profession, we may easily pronounce, that the regiment will be fit for service on a very short notice, and able to undergo the severest hardships*.

A surgeon's education (for I suppose him always to be liberally educated) renders him a proper person for much of the confidence of his commanding officer. In all things respecting

* See Brocklesby on Military Diseases, &c.

specting the soldiery (their manœuvres excepted) he can communicate, from time to time, much useful information. From his instruction, aided by the *orders* of the commanding officer, much disease may be prevented in the regiment. Domestic discipline and the arts of prevention, as is well known, can do more oftentimes than physic; and, what is still better, may, for the most part, be applied with little or no incouvenience, either to the men themselves or to immediate service: and things tending to this end, it should be his business to point out and inculcate. This will consist of things little regarded but by the philosopher.

Where the appointment of field-officers has been happy; and where a judicious regard has been paid to the medical appointment, almost every disease, except such as arise from contagion, may be obviated in the regiment. Wise regulations strictly enforced, will be found efficacious even against unwholesome diet, climate, and the other vicissitudes of a soldier's life. In the navy, where more care has been taken than in the army, we find it so; and since there are on land less obstacles to encounter in putting such regulations into execution,

execution, we may reasonably expect equal good effects. This, it is to be apprehended, will never come to pass, till the surgeon has a superior rank, and till more care be taken in the choice of this important officer. It is little we are to expect in the walks of philosophic life from young and uninformed boys; yet much of regimental practice is committed to the care of such. We may as reasonably expect much military experience from beardless colonels, as much medical knowledge from beardless doctors: and yet, a man is not always to be esteemed for his age.

To return: a very great complaint in the army is *blotches* over the body and extremities, often of a phlegmonic appearance, and to which some give the general name of scurvy. These are sometimes of a herpetic nature; at others a real psoa, or itch; or it may be a conjunction of both: for, I think, I have seen it so. Among soldiers they all go by the general name of the itch; and by many, I apprehend, are mistaken for it, though the treatment should be different. Such complaints are by officers looked on as easily and speedily curable. It appears to them, who are unacquainted with the causes and seat of diseases,

diseases, or with their distinction, a trivial affair: yet will it often be found quite the reverse. These cannot oftentimes be removed without a total change in the patient's manner of life. This will be easily understood, when we consider, that a soldier's eating, drinking, and even clothes, are sometimes in fault; and till these be all changed, no radical cure can take place. Let us suppose it the itch alone, and that his bed infected him, a cure cannot be made till his bed-clothes are either washed, fumigated with sulphur, or changed. If he is in a billet, he may find it difficult to accomplish either. The innkeepers will scarcely be at this trouble with a guest they so much dislike.

When a soldier's food is of a thin, coarse, watery sort, *i. e.* of a quality that produces little chyle, and even this of a bad kind; or if the food be of too dry, or of an alkalescent nature, such as living almost entirely on hard, tough, dry cheese, and coarse bread, with little or no vegetable food, is it to be expected that his juices are pure? and I have known them live on almost nothing else for weeks together, when they were not put into messes. As well might we expect to reap wheat from

tares, or oats from rye as find wholesome juices here. If his frequent change of lodgings subjects him to dirty beds, will he not partake of the foulness of those that lay in them before him? People who are forced to afford beds *gratis* will be at little pains to wash them at each change of lodgers. From contagion, and from the causes now pointed out, the soldier may be at the same time affected with itch, and herpes; and though the surgeon may effect a removal of the one, as its cause and cure are well known, yet the other eruptions, which I shall call constitutional, cannot, by the best skill, the most rational treatment, be rooted out, till his food is changed for that of a more wholesome, and nutritious quality, as well as his whole mode of life.

In barracks, many of the inconveniences under which the surgeons, as well as the men labour, are avoided. But, I am sorry to say, the number of barracks in England is very trifling, when compared to the number of troops in time of war; and several of the few we do possess, are either too small or otherwise ill contrived. The number, as well as conveniences of barracks, are much greater in Ireland. The usefulness of a mess

is obvious ; but in billets, where the privates are scattered up and down through the town, to form a mess is next to impossible. Yet nothing conduces more to health ; for then, whatever their inclinations may be, they are supplied with, and obliged to live on, wholesome food. Their pay is not given them at their own disposal ; a certain portion of it is set apart for their diet. In billets it is far otherwise ; each man receives his pay, and is at liberty to expend it as he pleases. Many will drink their whole week's subsistence in an hour or two after it is received, and must starve, or live on chance the six ensuing days ; and those who do not behave so, generally make so bad a choice of their food, that their blood is impoverished, and they become subject to inveterate cutaneous eruptions, as well as to other diseases.

Cleanliness, also, in billets, is much less attended to, than in barracks. When scattered through a town, the soldiers are less attentive to this, because less under the eyes of their officers. For although the rules of the army oblige them to appear twice a day on parade, this momentary, or partial cleanliness, is of little use in their general health. It extends to nothing farther than their shoes,

cross-belts, and musquets, with the whitening of their hair with a little flour : the chief part is still neglected.

With regard to the removal of these eruptions, and foulnesses, it sometimes happens, that change of quarters does more towards it, than all the medicines the surgeon has exhibited, or can advise, *i. e.* if a route carries a regiment from a dear country to a place where the necessaries of life are cheaper. Clean, wholesome, nutritious food, comes now more within the privates reach. He can eat, because his pay better affords its purchase.

What makes the great difference between the officer and private with respect to these foulnesses of the skin?—their manner of living alone. Could the private eat out of the same dish, drink of the same liquors, sleep in the same sheets, and wear the same number of shirts, &c. in the week as his officer, his hands and legs would be as clean, and his skin as smooth. Officers, then, should not be discontented with their surgeon, if these foulnesses to which the men are, from the circumstances mentioned, so liable, be not as speedily removed as their wishes prompt them to expect, provided they find the surgeon attentive

tentive in applying remedies as far as lies in his power. In such cases, having a confidence with the commanding officer is a great consolation. Should an injudicious report be preferred against him, it will not act to his prejudice.

The venereal disease is another evil which is so prevalent among the soldiery, that it causes no small trouble and vexation to the surgeon, and is none of the least of the inconveniences we are pointing out, which he is obliged to encounter. It brings him many hours of anxiety; for the officer frequently murmurs if the men be not speedily cured of it; but it is oftentimes no sooner removed than it is again contracted.

Among soldiers it is so prevalent, that no reproach follows it, either from their comrades or from many of their officers. While this is the case, all hopes of reformation are shut out. Yet, I would venture to give it as my opinion, that some punishment should follow it; nay, every method practicable for its suppression, as far as possible, should be used. This has indeed been my language, when I have been answered, "It is the common course of nature to desire
" women ;

“ women ; if you can deprive men of passions,
 “ then you may of women, not otherwise.—
 “ And why attempt to deny soldiers a gratifi-
 “ cation which is so natural, and enjoyed at
 “ pleasure even by the brutes ?” But I would
 beg leave to answer these gentlemen, that it
 is only the common course of vice, not the
 common course of nature, thus to con-
 taminate themselves. It is true, that by na-
 ture we are all endowed with a strong pro-
 pensity towards the female sex. This is pro-
 per, as well as natural, since by the union of
 the sexes the species is to be propagated. This
 is the method by which the Deity has thought
 fit to continue the human race, as well as
 the other classes of animals. We find male
 and female among not only what is called the
 rational, but the irrational part of the crea-
 tion ; and even in the vegetable kingdom
 something similar.

Among the rational, with which is our
 chief concern, though there be this natural
 propensity of the sexes for each other, yet the
 Deity has laid certain restraints on it. To
 have women in common, he well knew,
 would be the bane of society, and must lay
 the foundation of many evils ; and even tend
 to

to the decrease, not the increase of the species. We see this experienced every day among that unfortunante class of females that live by prostitution. Sterility seems to be entailed on them as a curse. The irrational world, as I shall call them, live not in society, like men; at least live less in it; and this, perhaps, may be one reason for his allowing promiscuous cohabitation among them. Another reason is, they are almost universally more continent, more chaste, if I may be allowed the expression, than the rational kingdom.

Among these, the times of heat keep pace pretty much with the times of gestation in the female; or the returns of it in the female are according to those periods of propagation. In the rational world it is different. A greater latitude is allowed by nature to them. Perhaps, partly for the exercise of their rational faculties, which point out what is right, and what is wrong, and, among other things, points out the bad consequences of the too frequent and promiscuous use of women; but this latitude is restrained within certain bounds by a wise prohibition: for had it not been so, "to encrease and multiply," at least in the same proportion, would not have been accom-

complished. But granting that sterility would, not follow, other evils, of no trivial nature, would spring from thence. Paternal affection, if not altogether destroyed, would be much blunted; for as none could then certify his own progeny, none would be particularly interested in procuring it subsistence, or education. Besides, the irrational world do not stand so much in need of this assistance. They come sooner to maturity, to their acmé; nay, almost as soon as they come into the world some of them can nearly provide for themselves. But man takes not only a long time to rear up, but much care; nor is it till after a long period he can provide for his own subsistence.

This seems another reason that renders it absolutely necessary for both parents to unite their endeavours to produce this great effect; and till then, as a farther stimulus, or spur, that love and anxiety for our children's welfare, which is known by the name of *parental*, always continues. As they grow to maturity, however, and can provide for themselves, it becomes more and more weakened; and, as old age, which produces feebleness and incapacity in the parents, approaches, duty teaches the children to give them their assistance

ance in turn. Hence the constant and continued tie of family affection.

But though it was said, that the irrational world cohabited promiscuously, yet, among some classes of these, we find a like strict adherence of one male to one female, as long as it is necessary to effect the great purposes of nature. The winged creation court, and adhere to one mate, till their common progeny be capable of providing for themselves. Then, and not till then, does the attachment cease. After this, they forget one another: the purpose of nature being now answered, its longer existence would be useless. It seems now to be altogether, and for ever dissolved. As the parents stand not in need of the assistance of their progeny in old age, filial and parental affection have no longer existence. This link seems also broken; for as birds are the prey of one another, it is very probable, few of them live to old age, *i. e.* to such an age as renders them incapable of providing for their own support. And this may be a farther reason why it becomes so soon, and so totally dissolved. A remembrance of kindred could be productive of no good; on the contrary, it might subject them to anxiety and grief, should they

they see, or know, the fate that may often attend their kindred.

The laws of nature, therefore, as well as the regulations of society, have established it very differently among the rational world: hence marriage, and the care of families. In a word, where the female confines herself to one male, propagation follows, and the order of nature takes place; but when she rambles from day to day, loose in her desires, admitting every solicitor, barrenness is the consequence. If this method was followed universally, would not the human race, in a few ages, become extinct? But this is a question I shall leave to the farther discussion of the moralist, and proceed with my proper subject.

We said, that the venereal disease was an evil which created great trouble to the surgeon, notwithstanding its cure is so well known. Some method should be devised, either for the entire suppression of fornication, or at least of rendering the opportunities of contracting the disease less frequent. To assist in this scheme, no countenance should be given to such practices by the officers. It should always be followed with some punishment;

ment; and, on the other hand, every possible encouragement held out to marriage, of which the nature of the service will admit. We acknowledge, marriage is not prohibited in the army, yet I have long thought, that too little encouragement is held out for it; nay, I have seen a manuscript book of orders, wherein the men were entreated not to marry. We know, however, many families are brought up in the army, among the privates, most of whom, as soon as fit, enlist either in the regiment wherein they were born, or in some other. And from this source alone, a considerable body of troops, for the most part the best soldiers, are added to the army; and, I am confidently of opinion, it might be turned to much farther account for the public service, by giving greater encouragement to marriage with modest women. I know there are difficulties attending it, which, in some measure, might be removed. When a regiment, for instance, is ordered on foreign service, it is only a certain number of women that are permitted to go abroad. Prostitutes frequently find means to go, when married women are separated from their husbands. This should be prevented as far as possible.

possible. Perhaps, if a register was kept of the married men in each company, pointing out the time of the marriage, and the names of the parties, and this called over on embarkation, to ascertain the really married, in order to exclude prostitutes, and admit these, it might be some means of obviating this imposition, and some encouragement for marriage. Every woman of bad fame found among the single men should be drummed away, while some reward should be offered for discovering such as on these occasions kept them secreted, and some stigma of reproach put on the offender.

I do not know whether something like the following might not answer to prevent fornication, at least it might be tried, viz. That a certain sum should be deducted from the pay of every soldier who had contracted this disease. When they have not to pay for it, they contract it with the less reluctance. And this is the case in many regiments. But in others, again, each man pays a crown for his amour, which the surgeon gets for his trouble. Respecting this, I have in another tract ventured my opinion*. To pay this they

* See "Thoughts submitted to Officers, relative to a Regimental Fund for the sick Wives of the Privates."

they should be put on stoppages of a penny, or two-pence a day, till discharged : hence the punishment would exist till the payment of the last penny. This would not too greatly distress them ; but, at the same time, operate so far as to make them cautious in future. In the navy, a much severer tax on this pleasure exists. Each man pays no less than fifteen shillings for his cure. This also goes to the surgeon : perhaps it would be better if differently disposed of. In the army, this venereal money should be collected, and should make part of a fund for the relief of the modest married women of the regiment, when incapacitated from earning their food by sickness. And when a married man contracted the disease, the fine should be doubled, both from the double dire effects it may produce on his wife, and for his having less temptation than an unmarried man of going astray. Here he breaks the marriage vow, so solemnly sworn before God and the world ; and, to add to his guilt, he makes the innocent a partaker of a loathsome disease, which not only may destroy her peace of mind, but her health ever after. I have but too often seen this the case in military life.

This is a complaint of all others with regard to which an officer should be cautious of reflecting on the surgeon, if it be not so soon removed as he may suppose it ought. The truth of this will appear, if it be considered how liable the men are to impose here. The surgeon shall discharge a soldier to-day perfectly cured—that very night this man shall cohabit with some unclean prostitute, and, in a few days after, he will return ill of the same complaint, newly contracted: first telling his officer, to screen himself, and obviate a reprimand, as well as to obtain leave to be again returned in the sick list, that the surgeon sent him to duty before he was properly cured; but will cautiously conceal his new illicit amour. Hence it is kept hid for some time, and the blame must fall on the surgeon, till his comrade, or some of the men that were privy to the affair, discover it. Till this takes place, it goes current among the corps, that the surgeon turned him out too soon, as they call it. I have been frequently served so, but I have always been happy enough to have the commanding officer on my side, and able to clear myself to him. I had a remarkable instance of this in

in the summer of 1783, where an idle, ill-behaved private repeatedly served me so, and had address enough to make the lieutenant of his company give credit to his tale for a day or two, but the major, then the commanding officer, readily acquitted me*.

Another very strong argument in favour of our opinion, that officers should bestow all the pains in their power to suppress this promiscuous use of women in the army, is, the decay it soon produces in the soldiers constitutions. A man who has been frequently affected with this disease will never enjoy good health, nor be long fit for the duties of a soldier. If he contracts a confirmed pox, which he can hardly escape, how difficult is it to eradicate it out of the constitution! even in those that can afford every conveniency to favour a complete cure, it is sometimes not done without the utmost difficulty. It becomes much worse in a private soldier, who has frequently every thing that tends to retard and prevent his recovery against him. In cases, indeed, of this confirmed nature, it is seldom the officer will permit the patient to

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continue

* See "Thoughts to Officers," &c. where I have related this case at large.

continue long enough under the surgeon's care to perform a radical cure. The great number of sick is his constant complaint. What can the surgeon do?—as soon as some of the worst symptoms are removed, he marks him out for duty, to avert the blame of his keeping a patient so long in the hospital. But the unfortunate man is soon obliged to return: he has a rheumatism; universal pains; nodes; inflamed eyes; impaired sight; impaired hearing; is asthmatic; has obstructions, perhaps of the liver; obstructions in the urinary discharges, either in the bladder, or constrictions and caruncles in the course of the urethra; is affected with fistula in ano; is covered over with venereal ulcers; is totally cahectic; and though a young man, seems worn down with years and infirmities; a constant sanies discharges from his head; he has glandular swellings; is hoarse, from an affection of the palate; and has lost a great part of his nose; his head is giddy, so that when he stoops, he has scarce strength to raise himself; his lungs are affected, and he has a severe cough, and purulent expectoration; he trails out some months longer a life of misery, and then falls, at an untimely age, a martyr to his irregularities! From this
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it must appear, how detrimental to the service the venereal disease proves; and it appears also, how necessary it becomes to attempt, as much as can be done, its suppression in the army.

Sore legs are another frequent complaint among soldiers, and prove also a very troublesome affair on many occasions to the surgeon. A soldier with sores on his legs cannot properly do his duty, because he cannot wear his long gaiters, and he dares not appear on parade for duty without them. These may be of the herpetic kind already mentioned, or they may arise from a different taint; they may be venereal, and will only yield to mercury, and those remedies suited to expel this poison from the blood. Although the sore may be trifling, and such as does not injure the general health, yet, if their constitutions be infected with the venereal disease, it may prove very troublesome in healing. In this case, the officer may think it neglect in the surgeon, and want of proper management, to keep a man in the sick reports for some weeks, with a small cut on the skin, as they will call it. It is in vain to attempt an explanation of the causes that retard the cure: his

want of knowledge in the science prevents his comprehension of the case ; and, perhaps, his belief of what he is told may be wanting, especially as the sore may be small, and as he forms his judgment totally from appearances.

In cases, however, of this nature, the officer ought to rely on the fidelity and probity of the surgeon, provided he knows, from the general tenor of his conduct, he possesses these virtues.

A fine young man had a small ulcer on one of his legs, for which he was sent to the regimental hospital. He continued there above a month, and no cure could be made ; for, like many of his brother soldiers, he was irregular, and fond of spirituous liquors, which, from time to time, he found sufficient means to get brought into the hospital to him. The length of time he remained in it produced murmurs against the surgeon from the officers of his company. They were of opinion (it must be confessed, there was apparent reason on their side) that so trifling a sore might have been more speedily healed. He was therefore taken out of the hospital, and delivered over, as the term is, to the regiment. The
regiment

regiment then lay in barracks; and the poor fellow was confined, by one of the serjeants, to his barrack-room. The serjeant had, as a bravado against the surgeon, professed *he* would soon *cure it*, provided he was put under *his* care. When once a soldier is struck out of the sick list, the surgeon is no longer answerable for him: hence he took no more notice how the man fared; and more particularly as his removal in this manner was intended as a reproach on him. Things went on for about two months, without farther enquiry on the surgeon's part, till one evening, the surgeon was sent for in all speed to visit him, being informed by the messenger he was just dying. He found this strong constitutioned man, for he was so when he left the house, sitting up in his bed, and panting for breath: his shoulders raised nearly as high as his head; a great palpitation of the heart; an oppression of the præcordia; with all the other symptoms of hydrothorax: the abdomen tumefied, and evident marks of ascites; the extremities swelled; and, indeed, the whole system in such a condition, that medical assistance was in vain: the sore on his leg looked worse, and was more enlarged.

He was, without hesitation, pronounced near his end. He languished, however, a day or two longer before he died. Here, the disease he fell into from close confinement, and the serjeant's strict discipline, not the fore on his leg, were the cause of his death.

Whoever is acquainted with the human frame, and the nature and nicety of its component parts, will easily understand the consequences of want of exercise, nay, almost of motion, for such a length of time; the close air of the room, in which lay thirteen others every night, with the heat also from cooking daily for so many men, all conspired against him, together with the sudden change made in his diet, which was now very sparingly allowed; while, as an addition to the evil, he was in the vigour of life, and had previously been accustomed to take exercise to a great degree. It turned out, however, well for both the surgeon and regiment; for, had nature got the better of the serjeant's strict discipline, and the fore healed, though it should have left a broken constitution, it would have proved a constant bone of contention between the officers and surgeon; and since it ended, as might be reasonably expected, fatally, it will,

will, in that regiment, at least, most certainly prevent such rash proceedings, and irrational, if not criminal quackery, for the future.

Thus have we pointed out some of the chief difficulties a regimental surgeon has to contend with in his practice; and, it must be confessed, some of them are not of a trivial nature. His own prudence, however, will teach him to obviate some of them. If he cannot prevent them all, conscious of having discharged the duties of his station and profession, as far as lies in his power, he will console himself under any undeserved reflections that may be thrown on him in the course of his service. Did there exist no other reason to wish the rank of a surgeon in the practice of a regiment greater, and the place more honourable, this alone would be a sufficient one: I mean, that it might place him beyond the power of the ill-judged remonstrances of persons whose knowledge in his profession, give them no shadow of claim to such an authority, or ascendancy over him.

It is the surgeon's duty to pass recruits, *i. e.* to examine whether men enlisted be fit for the service. In performing this, he labours under some difficulties; for, if the man
he

be rejected by him as improper, the officer who enlisted him is offended ; indeed in all probability, he is a great loser ; for, if a recruit be not approved of, all that was given him is lost to the officer. But if, to please the officer, the surgeon accepts, and signs his name to the found list, he is blamed afterwards by the regiment, as well as by the commanding officer, when it is discovered the man is always in the sick reports, and really unfit for a soldier. Here he must be discharged : the King loses by him, and the service is injured. We may place this, however, among the surgeon's difficulties ; for he oftentimes finds himself in a dilemma ; and, let him act as he will, on these occasions, he may be sure of giving offence to some party. It is wrong to cheat the King, and sign a falsehood : it is a pity to put an officer, who, perhaps, has only his pay to support him, and is now under the increased expence of the recruiting service, to the loss he must sustain, by rejecting his recruit.

CHAPTER III.

OF THE SURGEON'S QUALIFICATIONS, AND OF HIS
TENDERNESS TO THE SICK SOLDIERY.

I HAVE thus pointed out some obstacles that oppose the surgeon's endeavours, and sometimes frustrate his wisest attempts. I hope he will now allow of equal freedom, and excuse me, in placing some cautions in the opposite scale, which may more immediately concern his own behaviour. Though I shall do this with freedom, and without farther apology, yet it is only with a true wish for his welfare, and sincere regard to his interest; and that he may be the better enabled to preserve his good name, and, as far as possible, avoid deserved censure from the officers, from his patients, and from the world in general.

The situation of a medical man is of all others the most delicate; and as it is a public line of life, the world is ever ready to make free observations on the conduct of those engaged in the profession. If these were always the result of deliberation, it would be of less moment: but this is not,
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on all occasions, the case. A trifle may gain, as a trifle may often lose a practitioner a reputation, which, like a spot on white paper, can never be wiped out so clean as to render the stain imperceptible. It is as delicate as the character of a lady, where even suspicion of some wrong step, will ruin her fortune for ever. Hence the care we ought to observe, and the circumspection we should use in all our actions.

In entering into a regiment in a medical line, the first thing a surgeon should have in view is, his own qualifications for the office he is about to undertake. He should reflect on the nature of his charge, its great importance, and how culpable he must appear, both before God and man, in the neglect of any part of his duty.

The lives of upwards of seven hundred men are, I may say, put into his hands,* provided the regiment contains its full complement; and for the care he takes of them when sick, he is answerable to his country, his King, and his conscience. If he has
found

* See *Introduction* for the complement of a regiment. The complement of some is even 1000; though, it is true, they are seldom complete.

found interest enough to fix himself in a station which he knows he is ill qualified to fill, from his want of medical knowledge, or proper opportunities to receive it, he usurps the place of the more liberally educated, and deceives his patients. Besides, he imposes on the regiment that accepts him, who, perhaps, before his admission, were taught to believe far otherwise of his knowledge.

If good opportunities of information in the scientific parts of his profession have previously been held out to him, and, instead of embracing, he has neglected them; if he wasted that time and money his parents or friends allotted him for the laudable pursuits of philosophic investigation, and a knowledge of medicine, in criminal idleness, or ruinous debauchery, whereby his health of body and powers of mind have been impaired and enervated, his conduct is highly reprehensible, is culpable; and it is still heightened by his pushing himself into an office, where he may have it in his power, nay, cannot well avoid, to do much, though not intended mischief. But, we hope, this is what does not often happen.

If the best informed understandings in
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the medical walks of life too frequently find great difficulties in determining how to act for the best, what can the less informed do when difficulties surround them? Can persons unacquainted, perhaps, with the most obvious parts of physiology; even with the circulation of the blood, and course of the chyle, not to mention the situation and functions of all the different parts of that intricate, but noble structure, the human body, pretend to remove the many diseases to which these are liable?—pretend, indeed, they may, but, in their fortuitous attempts, there is but little rational probability to expect success. Add to this, perhaps, their utter ignorance of the nature and properties of the substances they exhibit, and the effects they are likely to produce. This they have but little chance of knowing, should the above supposition be true, since it will depend partly on the state of the patient at the time, and partly on the nature of the medicine exhibited.

I am led to make these reflections from having observed numbers of young men pass their time very idly at the university, and other medical schools, where their friends had placed them for improvement. Many there

there spend whole seasons without ever applying to any thing serious, or scientific, till not only the time allotted for their stay has elapsed, but their money has been exhausted. Several of such, however, find means, through the assistance of friends, to obtain appointments in the army, particularly in time of war, either of surgeons or surgeons mates. Here we should have some reason to conclude, did not charity forbid us, that they often commit essential mistakes; for, however upright may be their intentions, their incapacity of forming and following proper plans is a bar to their success. It is, indeed, frequently best for the patients, when persons of this description attempt least. It is to be hoped, however, there are now few such in the service.

Many, likewise, who enter into the army in this line, never were at all within the limits of an university, nor ever had an opportunity of hearing, in any medical school, a single lecture on the subject. If such be qualified to assist the operations of nature, in removing disease and restoring health, the world may judge. Boys who have served in the shop of some country apothecary only a

year or two, nay, it may be, only a few months, have been admitted, and that without any attempts towards an examination;* nay, we could point out cases, where even a common soldier from the ranks, after assisting the surgeon of the regiment, in spreading plaisters, for some time, and in the capacity of orderly man, was appointed mate thereof, on a vacancy that soon happened; and, if he had outlived the surgeon, or a vacancy happened from promotion, or other causes, would, no doubt, have succeeded him in the office.† Genius, diligence, and a mind turned to

* A boy in a certain town in the North of England, as I am well informed, had served there in an apothecary's shop about a year. A certain gentleman of rank in the army, who had some connections with the town, was then in America (it was during the late war). The boy's father was a freeman of the place. From this, and the gentleman's connection with it, the boy was sent over to be provided for by him; which, without any farther medical education, as my informer asserts, was speedily done, first by a mate's warrant, and soon after he was made a full surgeon to a regiment. Even while I am writing, a friend informs me of a young man under the same disadvantages of education, who, after spending some time in a shop, was, by the zeal (I shall call it the intemperate zeal) of a friend, advanced from behind the counter to be surgeon, as well as an acting officer, in a militia corps. This may be relied on as a fact: my friend is acquainted with the party.

† Were it necessary, to gain it further credit, I could point out the name of the soldier, and regiment wherein this happened.

to enquiry and observation, may, in a great measure, supply the place of education; but where both are wanting, the consequences are obvious. If proper proofs of such talents have been exhibited by such as receive these irregular appointments, it becomes some apology for the conduct of their friends in obtaining for them these stations. I hope, however, such cases as the above are not frequent. It is such examples as these that lay the regimental practice under the disgrace we in general find it.

It may be said, the army is a good place for improvement in medical knowledge. In some respects this is true; but it is so to such only as have been previously accustomed to reflect, and such as are capable of making observations. Sir William Temple very judiciously observes, that "though a man may grow
" learned by other men's thoughts, yet it is
" from his own thoughts, as well as experi-
" ence, that he will grow wise."* It is little of this kind we are to expect from an apprentice boy, or even one who has spent some idle time at some medical school. Besides,

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* Vid. On Health and Long Life.

the army is a bad place to begin reflection in. The customs there are too much adapted to the want of thought, and the giddy dissipation, which their youth, joined to their inexperience, renders them prone to follow. Dress, and shew, are but ill suited for serious study. These make a constituent part of the life of a soldier; and, for a soldier, they may, and I believe are, necessary, in order to throw a lustre, and kind of dignity round the service. These, for aught I know, may be altogether proper, in a certain measure, for the very existence of the army; but they agree very ill with the scientific surgeon, or with him who wishes to become so. To use the words of an author we have already mentioned, and who has touched on the subject,* “All men
 “of candour, who have ever felt, or known
 “the force and happy effects of long and
 “diligent studies, and continual application
 “to any system of science beyond moment-
 “ary impulses, will make no scruple to al-
 “low, that a want of early culture, almost
 “a total deprivation in youth of intercourse with
 “the most refined part of their profession, and,
 “as

* Dr. Brocklesby. See *Economical and Military Observations*.

“ as it most commonly happens, an absolute
 “ neglect of a liberal education in the gene-
 “ rality of surgeons, are altogether apt among
 “ them to induce quackery, or, at best, a nar-
 “ rowness of thinking about medical sub-
 “ jects.”

But I shall now suppose there is no farther need of these reflections, but that diligence has been united with the opportunities of improvement ; and that the labours of those gentlemen have at length been crowned by the honourable testimony of those teachers of the different branches they have attended ; that they have entered the army afterwards through a sincere desire of practising diligently, and conscientiously, as far as their abilities and knowledge permit and extend ; that their sole wish is to be useful to those under their care, and ambitious, at the same time, of their own farther improvement ; conversing always with medical men, on medical subjects, as often as opportunity serves ; and collecting facts, either from their own observations, or the observations afforded them by the relation of others. It is men of these dispositions that can practice properly ; it is such only that can reflect true honour on the military

medical profession. Such was the late eminent Pringle ; and such were many others we might mention in the service, men of distinguished merit, and well-earned fame.

The next caution I would beg leave to offer to the regimental surgeon is, tenderness to the sick soldiery. Yet it need not be told men of the dispositions now pointed out, that tenderness and humanity ought strongly to mark the character of every one engaged in the practice of physic. They are already convinced it ought, from their acquaintance with the frailty, and miseries that inevitably await the life of man. Misery, of one kind or other, they are daily conversant with : nor am I apt to believe, as some have asserted, that this steels their hearts, and renders them more callous to the sufferings of others. Habit, indeed, makes such scenes more familiar, but it does not follow, therefore, that the feelings of humanity are obliterated, nor even the practitioner's sympathy lessened, because, occasionally they are obliged to give some pain, in order to restore health. A sympathizing disposition is amiable ; nay, medically useful to the possessor, in as far as it impresses the patient with a good opinion of his doctor,

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which is always one step towards the cure ; for his advice and prescriptions will now not only be more cheerfully and strictly complied with, as appearing to be those of a friend interested in his recovery, but a calmness, quietude of mind, and confidence will follow, very essential, it may be, to his future health. The contrary is brutal, nay, even impolitic, in the surgeon, would he rightly consult his own ease ; for, while it wounds the patient, it fails not to destroy this confidence. Besides, it often makes the advice, admitting it to be good, either despised or neglected, unless it be such as exactly suits the patient's inclinations ; and, consequently, it must create him more trouble by the protraction of the patient's illness.

What can add more to the distress of a poor sufferer under sickness, than roughness of behaviour in him from whom relief was expected ? He is already weakened, and enervated by the affliction he is under. His situation, too, is generally less comfortable than he has experienced it in similar circumstances, before it was his lot to wear a cockade. He has now no friends near to sympathize with him ; no parental, or fraternal anxiety to watch over him, or procure

those little delicacies that the situation of a sick man often requires; none to perform those other little offices of attention which, if in reality they do no good, at least quiet the mind, and please the peevishness attendant on sickness, and may even have their effects in co-operating with the doctor's advice. These he may remember, and regret; while such roughness in his surgeon makes the contrast more perceptible, and adds to his uneasiness. He feels now, with a double pang, every harsh expression used. Should any surgeon, or any man whatever, act in this way, I would not hesitate to call it both unmerciful, and unmanly. In a regimental practitioner more especially so, since the soldier has it not in his power to resent it, by calling in another. The noblest mind is always the most merciful, the most capable of tenderness and pity.

A behaviour of this kind in the army has this farther aggravating circumstance against it, that not only the surgeon, but the soldiers well know, that in any other situation but this, if practising even among the poor of an hospital, or dispensary, he durst not act so, since his interest, reputation, and livelihood, would

would rise up against him, and forcibly forbid it; powerful arguments, truly, to curb this irritable temper. Out of the army, it would immediately (and deservedly) cause his dismissal; nor would he ever after be employed, either by those, or their connections, whom he had thus so brutally abused.

There is, I know, an argument used by some army practitioners, to palliate the rough treatment soldiers sometimes receive from their surgeons. "If you speak tenderly," say they, "to soldiers, you may be sure never
 " to be attended to. Disobedience and disrespect will be the consequence; and this will
 " not only injure the medical treatment, which
 " must be enforced when they refuse to submit to it, but will affect the subjection of
 " the men, and the discipline of the regiment." This objection, I am apt to believe, is ill founded. We may find many among the privates of as submissive a mind, and even humane, and tender feelings as in any other walk of life, among people of the same rank; nay, some also, whose rational faculties are not inferior to many who hold a high command over them. Such men will neither disobey, nor yet disregard the surgeon the

more for giving his directions in a soft, and tender tone of voice ; nor will their officers have the least cause to complain of more want of order among them from this source. Harsh, and ill-natured behaviour to men of these dispositions is cruel. They know its injustice, and feel it severely. They contrast it with what, in a different station, before they enlisted, they had been accustomed to :—the comparison is wide ; the treatment sits heavy ; they conclude they are become slaves, and are now unhappy.

—“ But to think, may it please your honour,” continued Trim, a tear stealing “ into the corner of his eye as he spoke,” —“ to “ think of two virtuous lads, with hearts as “ warm in their bodies, and as honest as God “ could make them—the children of honest “ people, going forth with gallant spirits to “ seek their fortunes in the world—and fall “ into such evils !”

TRIST, SHANDY,

Several, we know, enlist from misfortunes, who once kept decent houses, and lived reputably among their neighbours. In the army there is no respect of persons ; no distinction made. They must eat the same food,
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lie in the same apartments, do the same duty, and suffer all the hardships their station subjects them to, equally with their more hardened, and less deserving comrades, who, perhaps, never experienced a way of life superior to that in which they are now engaged. These are the men on whose minds harshness of treatment dwells with more pungency. Nay, I freely confess, I never knew any good purpose answered by it, even among the ill-behaved; the privates of real bad character: for, every one knows, the army, in times of war, is a medley of all characters, from those we have been describing, to the common highwayman. Though they dare not resent the surgeon's treatment, they hate him, and will take the first opportunity of doing him an injury, if they think a discovery may not follow, which would end in their own punishment. They swear at him when his back is turned; nor is he a whit nearer his purpose by it; on the contrary, I have seen the brutal, half-savage disposition softened down into humanity, by tender and kind usage, or even expressions, in his illness. Let the trial be only made, and I will answer for its success.

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What purpose does it serve, I would ask, to threaten, and swear at a soldier for being reported sick? If he be really indisposed, he has a right to the indulgence of an hospital; if *sconcing*, or *maligning*, as the term is, let his name be struck out of the list without more words, as soon as the imposition is detected, and let the serjeants of his company take care of the rest. While the surgeon does not retain his name in the sick report, it becomes their duty to see him perform his. But let it never be forgotten, that an accurate examination of his complaints, whether pretended or real, is to be made before this step be taken. We have touched, however, on this topic already. I am of opinion, this will do more to suppress *sconcing*, or shifting of duty, for the sake of a day or two's rest in the hospital, than hasty passion; and every one will agree with me, that it is more creditable. But this behaviour, we hope, in regimental surgeons, is little practised, and the less need, therefore, of cautions for its prevention. Yet, in a work of this kind, it was thought proper to point out not only its bad tendency but absurdity, since we have known it practised. In the army, whose laws are arbitrary, and

absolute, and where every one holds a command over another, from the top link to the bottom of the chain, even mild dispositions will, in time, partake of this domineering infection, meerly from observing it constantly practised, and slide insensibly into the same. Surgeons should be doubly careful to guard against it, who, from the nature of their profession, should, as the poet beautifully expresses it, never be found to want a sufficient share of "the milk of human kindness."

Again, with regard to neglect when ill, nothing hurts a soldier more. He knows he pays for his medicines out of the small subsistence which falls to his lot; that government likewise pays for a doctor to attend him when he needs it; and that, therefore, it is the surgeon's duty to visit him regularly. It is well known, the service is liable to hardships enough in health; the bed of pain should be as well smoothed, and made as easy as possible. It is seldom a soldier who is well used, and has been for several years in the service, deserts his colours. As much lies almost in this department, as where the officers are concerned. Every department should
conspire

conspire to give him all the indulgence of which his situation can admit, and to act justly towards him. It is a pleasant thing, either for a surgeon or an officer, to hear, "*God bless him!*" echo, in half whispers, through the ranks, as he passes along. It is the voice of applause—the plaudit of approbation—which publishes the performance of his duty, and which, if every officer, as well as surgeon, endeavours to deserve, he will as assuredly receive.

A soldier is far from ungrateful; he will oblige cheerfully when it is in his power. Retaliation, we confess, sometimes, also, marks his character. Unfeeling, severe, and inhuman officers, have often fallen in the day of battle, nay, on a review day, by the hand of some of those whom formerly they have unmeritedly abused. On the other hand, officers deserving to live, have been brought off the field in triumph, by a grateful soldier, at the hazard of his own life, when their wounds have prevented their retreat, and exposed them to the danger of either being killed, or of falling prisoners into the hands of the enemy. The surgeon, like the rest of the corps, is liable to incur the dislike, or, by
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his prudent behaviour, obtain the approbation, and favour of the soldiery. His chief care should be to deserve the latter.

In different chronic complaints, where the patients, though kept in the hospital, are not confined to bed, the surgeon should grant them as much indulgence as possible, with safety. This may not only gratify them, but may really conduce to the cure, by keeping their spirits up; for confinement to a soldier is a great bondage. The surgeon's great fear is of their irregularity, and their eating, and drinking now what is improper for their situation; for a soldier will hardly deny himself an indulgence of this kind, if it falls in his way, whatever be the nature of his complaint. Desertion, also, we own, may sometimes follow too great a licence; but as he is always allowed a corporal's guard for his hospital, he will have the less to fear from desertion. The chronic patients often entreat permission to walk out an hour or two in the heat of the day. This should always be granted, when some material reasons do not forbid; men suspected of *sconcing* should be refused; when it is granted, they should never be trusted without one of the men on guard

guard to accompany them, lest some scheme of desertion be attempted. This is a proper caution on the surgeon's part, who must answer to the commanding officer for all the men under his care. When requests, however, of this nature must be refused them, let it be done with a seeming concern and reluctance; nor let the surgeon think it beneath him to add his reasons. By this means, the refusal will almost satisfy them as much as if he had complied with their wishes. In fair warm weather, they should always be permitted to walk out, for some time, when it does not interfere with the means of cure. The exercise will keep up the languid secretions, induce cheerfulness, and render their situation more happy.

To maintain the better order and regularity in the hospital, the chronic patients should be under the command of a non-commissioned officer. It is seldom the sick list is without either a serjeant or corporal. The surgeon should take advantage of this, and give him the command in his absence. The foldier of the ranks always obeys a non-commissioned officer: the discipline of the army requires it. It is better to delegate this power to a serjeant
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or corporal than to the nurse, for they may then refuse obedience. By this means there will be a check on the disorderly, and turbulent; and the quiet of the hospital will be better preserved, a point sometimes very essential. I have been sent for, to considerable distances, merely to quell their disputes. It is on such occasions as this, that some severity, in order to preserve peace, *must* be shewn to individuals. In order to restore tranquillity, and prevent future quarrels, the surgeon is indispensably obliged, however reluctantly to confine, *i. e.* to send them under a sentinel to the *black hole*, or commit them prisoners, with a written crime, to the officer on guard, who will return them to the commanding officer when he is relieved, with their crime, stated in his reports; after which, the surgeon has it not in his power to release them; but this he may do between the time of commitment and the relief of the morning guard: they must then abide by the sentence of the field officer, or a court-martial; if the offence be of a nature to require it. As men in the hospital are never there without real complaints, the black hole, or returning them to the commanding officer, will subject them to a punish-

a punishment too severe for their situation, this should never be done but in emergencies. The black hole, where perhaps, they may lie for days on straw, without being undressed, and in a small, confined, nauseous spot, may not only tend to aggravate their complaints, but, from the cold they receive, aided by the medicines they were taking, may induce other diseases dangerous to life: this should be kept in view, and, if possible, they ought not to be subjected to this severe punishment. To *clog* the offenders will do them less injury, and may be punishment sufficient. They may lie on their beds, or sit up in a corner, with the clog at their legs, without detriment to their health, till they solicit to have it removed, by a promise of good behaviour. But, on these occasions, a surgeon should judge cautiously, and never exercise his authority wantonly, or make the punishment severer than the offence deserves; nay, even overlook it, where the health of his patient might be affected thereby. There is even more severity than may, at first sight, appear from having a large clog of from fourteen to twenty pounds weight, locked on the leg for a day or more; besides, there is an ignominy united to

to it, which is felt sometimes severely by those of spirit.

Under the head of tenderness, I may place a sort of deception *absolutely necessary*, sometimes, to be practised; a deception of all others the most pardonable, and innocent, since it has for its object the welfare of the person on whom it is practised. A deception of this nature, if it deserves the name, may occasionally be practised, with the happiest effects, to allay inordinate action of the mind, raise the drooping spirits, and remove inquietude, by confirming the patient's hopes, and seconding his wishes, in promising something on which he may have riveted his affections, and placed his happiness. This, perhaps, may be the only means to remove his disease. Besides, sometimes it may be in his power to perform promises of this kind.

A remarkable instance of this nature happened in my practice, in the summer of 1781, while I lay in barracks at Tinmouth, in the North of England. A recruit, who had lately joined the regiment, named Edwards, was returned in the sick list, with a message from his captain, requesting I would take him into the hospital. He had only been a few months

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a soldier ;

a soldier; was young, handsome, and well made for the service; but a melancholy hung over his countenance, and wanness preyed on his cheeks. He complained of universal weakness, but no fixed pain. A noise in his ears, and giddiness of his head. Pulse rather slow than frequent; but small, and easily compressible. His appetite was much impaired; his tongue was sufficiently moist, and his belly regular; yet slept ill, and started suddenly out of it, with uneasy dreams. Had little or no thirst.

As there were little obvious symptoms of fever, I did not know well what to make of the case. I suspected he might be under an incipient typhus, and ordered what I judged necessary to obviate it. Some weeks passed with little alteration, either for better or worse, except that he was evidently become more meagre. He scarcely took any nourishment, yet had hitherto sat up out of bed some hours every day. At length he became indolent; seldom sat up at all; was constantly dozing, yet his sleep never so sound but he could answer when spoke to; sighed deeply and frequently; nor could his attention be diverted to any external object. Something,
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it would seem, hung heavy on his mind. He never had any cough; yet, since he came into the house, had wasted away considerably. Exercise was recommended, and used as far as he could be roused to take it, which was never without reluctance. He was put on a course of strengthening medicines; wine was allowed him. All proved ineffectual. His pulse had changed with his appearance, and was now small and quick; an evident fever of the hectic kind, as it seemed, with an evening exacerbation, took place. He had now been in the hospital near three months, and was become quite emaciated, and like one in the last stage of a consumption.—Eyes were grown hollow; cheeks prominent; nails incurvated; adnata pellucid; and so weak in his limbs, that he could neither get in nor out of bed without help; of late, also, had night sweats: in short, I looked on him as lost. On making my morning visit, and enquiring, as usual, of the nurse concerning his rest, she happened to mention the strong notions he had got in his head, she said, of home, and of his friends. What he was able to speak was constantly on this topic. This I had never heard of before. The reason she gave

for not mentioning it was, that it appeared to her to be the common ravings of sickness and delirium. He talked in the same stile, it seems, less or more, ever since he came into the hospital. I went immediately up to him, and introduced the subject; and, from the alacrity with which he resumed it, yet with a deep sigh, when he mentioned his never more being able to see his friends, I found it a theme which much affected him. He asked me, with earnestness, if I would let him go home. He came from Wales; and I pointed out to him how unfit he was, from his weakness, to undertake such a journey till he was better; but promised him assuredly, without farther hesitation, that as soon as he was able, he should have six weeks to go home. He revived at the very thoughts of it. At this time, however, I made a promise which I knew was not in my power to perform, without the consent of the commanding officer, who alone can grant furloughs; but as my hopes of his recovery were very slender, my rash promise could give me the less uneasiness, and my scheme was, to animate his hopes, and endeavour thus to take advantage of the change that his mind might undergo
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by it, to co-operate with me in removing, if possible, the malady.

It seems, he had requested leave to visit his native place soon after he joined the regiment, but being only a recruit, and having come from thence but a few months, he was refused. This had hung on his spirits ever since; and from that circumstance I now dated the origin of his illness. I entreated him to take food to strengthen him for his journey; and, as soon as able, to go out into the open air a little every forenoon, when the weather would permit, that he might be the sooner able to go home. He listened eagerly to every word I said. In short, his appetite soon mended; and I saw, in less than a week, evident signs of recovery. He was now lively, though so weak that he could not yet get in or out of bed without assistance; he strove to sit up; two men took him between them in the heat of the day, and placed him on a seat they had erected for him on the beach, where he had a view of the shipping, for it was on the sea coast. In a little time he was able to walk. Every visit I paid him he resumed the subject of *the furlough*, which I persisted in promising, seeing the good effects it had already produced; and in less than two

months from the time he had received this promise, he was able to leave the hospital, and go to his barrack-room. I set myself about endeavouring, as far as in me lay, to accomplish his furlough; for he paid me almost daily visits, assuring me he was able to undertake his journey, if I would allow him; for he firmly relied on my word. I was in some dilemma now how to act. Yet his story was already known throughout the regiment, and the imminent escape he had from death. The deception, however, if I had dropped it here, was tenderness, and a regard for his recovery; but I went farther; I made public, to all the officers, the method I fell on to recover him, and told them, moreover, that if I did not succeed in obtaining him a furlough, I was sure he would relapse, as soon as he understood his expectations were to be frustrated. I won them over to my interest. The story was publicly talked of; the commanding officer was likewise acquainted with it; and the request was now made to him, which he obligingly granted.

Nosologists mark out to us a certain disease, under the name of *nostalgia*, or a longing after our native country, or home. If the forego-
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ing case comes not under that head, I know not under what genus to place it.*

Dr. Zimmerman, in a work of his (*Experience in Phyc*) which I have perused since the above was written, says, the Swiss are extremely subject to fall into this species of melancholy when in a foreign country. It sometimes, he tells us, proves fatal in a short time. Barrere has seen it in several Burgundy soldiers, who were forced into the service, or refused their dimission. Dr. Auenbrucker, has also frequently observed it in young people, who had been enlisted by force, and despaired of ever seeing their home and friends again. They were first silent, languid, pensive, emitted deep sighs, seemed exceedingly sorrowful, and gradually became insensible to every thing. Among the Austrian

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troops,

* In Dr. Cullen's *Nosal. G.* 106, this disease is characterized in the following words:—"Nostalgia.—In absentibus a patria, vehemens eandem revisendi desiderium." This eminent professor has marked two species of the disease in the last (4th) edition of his work.—"1. Nostalgia (*Simplex*) sine alio morbo.—" 2. *Nost. Complicata*—aliis morbis comitata." Sauvages has done the same. Vogel considers the disease as a species of melancholy, and has given it a place in his *Nosology* as such.—*Vid. G.* 332. His words are,—"Melancholia—Insania longa cum mœstitia ac timore.—" *Nostalgia* ejus species est."

troops, the same author tells us, it was formerly very frequent, but it is now extremely rare, since a plan has been adopted for enlisting soldiers only for a certain number of years, and discharging them when this time is expired. "I believe," adds Dr. Zimmerman, "it will be found among men of every nation, who, in foreign countries, feel the want of those delights and enjoyments they would meet with among their friends at home.—In short," he goes on, "every Swiss feels, as I do, the *nostalgia*, under another name, though at home, whenever he thinks he should live better in any other country." Dr. Auenbrucker observed, that in several who died of this disease, the lungs adhered to the diaphragm, and that some part of the lungs was indurated, or was even become more or less purulent; and I am happy to find, the method of cure he relies on is the same which I adopted in the above instance. When the disease has not degenerated into phthisis, or *madness*, wonderful effects have been produced in patients, by inspiring them with the hope of soon seeing their friends and their home again. Dr. Zimmerman relates an instance of its good effects on a Swiss of the canton of Berne,

Berne, who studied physic at Gottingen : he fancied that his aorta was about to burst, and could not be prevailed on to stir out of his chamber. About this time his father sent for him home ; he then ran over all Gottingen, with the greatest joy and alacrity, and took leave of all his acquaintance ; yet, two days before this, he was hardly able to get up a little stair-case, without being in danger of suffocation ! His father afterwards sent him to the university of Basil, and from thence to the French part of the canton of Berne, the finest country in Europe, situated along the lake of Geneva. Here he was again attacked with the *nostalgia* : he is now, he adds, in perfect health.

I knew an instance myself in 1786, somewhat similar to this, in a young lady at a boarding-school. She was of a delicate make ; and though the confinement in school was by no means such as could much injure her, had she liked her situation, which she did not ; yet she became cahectic, had a cough, which forced up streaks of blood, her legs and ancles swelled, and she was on the brink of a phthisis pulmonalis. She was removed from school (where she never thought herself happy) to her great satisfaction, and soon recovered. This uneasiness to live
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troops, the same author tells us, it was formerly very frequent, but it is now extremely rare, since a plan has been adopted for enlisting foldiers only for a certain number of years, and discharging them when this time is expired. "I believe," adds Dr. Zimmerman, "it will be found among men of every nation, who, in foreign countries, feel the want of those delights and enjoyments they would meet with among their friends at home.—In short," he goes on, "every Swiss feels, as I do, the *nostalgia*, under another name, though at *home*, whenever he thinks he should live better in any other country." Dr. Auenbrucker observed, that in several who died of this disease, the lungs adhered to the diaphragm, and that some part of the lungs was indurated, or was even become more or less purulent; and I am happy to find, the method of cure he relies on is the same which I adopted in the above instance. When the disease has not degenerated into phthisis, or *madness*, wonderful effects have been produced in patients, by inspiring them with the hope of soon seeing their friends and their home again. Dr. Zimmerman relates an instance of its good effects on a Swiss of the canton of Berne,

Berne, who studied phyfic at Gottingen : he fancied that his aorta was about to burft, and could not be prevailed on to ftir out of his chamber. About this time his father fent for him home ; he then ran over all Gottingen, with the greateft joy and alacrity, and took leave of all his acquaintance ; yet, two days before this, he was hardly able to get up a little ftair-cafe, without being in danger of fuffocation ! His father afterwards fent him to the univerfity of Bafil, and from thence to the French part of the canton of Berne, the fineft country in Europe, fituated along the lake of Geneva. Here he was again attacked with the *nostalgia* : he is now, he adds, in perfect health.

I knew an inftance myfelf in 1786, fomething fimilar to this, in a young lady at a boarding-fchool. She was of a delicate make ; and though the confinement in fchool was by no means fuch as could much injure her, had fhe liked her fituation, which fhe did not ; yet fhe became cahectic, had a cough, which forced up ftreaks of blood, her legs and ancles fwelled, and fhe was on the brink of a phthifis pulmonalis. She was removed from fchool (where fhe never thought herfelf happy) to her great fatisfaction, and foon recovered. This uneafinefs to live
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at home preyed on her health. Tho' she recovered however from the present illness on being removed to her father's house, yet I am sorry that truth obliges me to add, that about a year and half after this happy change, she relapsed: a phthisis pulmonalis now followed, (an hereditary disease in her family) and cut her off in the flower of youth and beauty. In the space of about three years from thence, two of her sisters likewise fell sacrifices to the same malady. The case of this Lady however is a strong example to our purpose, and proves from the recovery she experienced, the necessity of our endeavours to remove uneasiness of mind, not only as a prelude to, but as a principle means of restoring health.

We every day hear of people dying of *broken hearts*, as it is expressed, *i. e.* of a depression of spirits, occasioned by disappointments of various sorts. Perhaps they may all be placed under the same head.

In the begining of the same year, I assisted at the dissection of a soldier, in Newcastle upon Tyne, of the South Lincoln militia, who, the surgeon assured me, had died of love. Before his death, he was likewise greatly wasted; so that his case might be stiled *atrophia*. Like
Edwards,

Edwards, whose case we have related above, he had no cough, but nightly sweats, and exacerbations of fever. He took little or no nourishment, and, in other respects, was very similar to our patient. That he died from the effects of this depressing passion, all the corps to which he belonged agreed, some of whom knew his attachment before the regiment marched from their own country to this. Perhaps similar means, *i. e.* a deception, by raising his spirits, and cherishing his hopes, till time and new objects could have effected a change, might have saved his life.

I believe every one is agreed that this is to be placed among the melancholy passions. Sometimes it acts suddenly, and violently; at other times, like intense grief, it gradually undermines the constitution. The more general effects of this tender passion are, a tremulous pulse, deep sighs, an alternate glow and paleness of the cheeks, dejection, loss of appetite, a faltering speech, cold sweats, and watchfulness, which gradually terminate in consumption, or, perhaps, induce insanity, and sometimes suicide. Richardson, in his *Clarissa*, has well described the effects of this passion. Tulpius gives us a curious instance of its effects:

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the subject of the case was a young Englishman, who met with a refusal from a lady. He became perfectly rigid, and motionless, sitting in the same attitude with his eyes open, and appeared rather like a statue than a human being; he continued in this posture till night, and then being told that his mistress yielded to his passion, he rose instantly, as if from a profound sleep, became more cheerful, and soon recovered.*

The above cases prove, the vast influence the passions have over the body, and how much it is incumbent on the practitioner to study the springs of the mind, as the source from which he is to deduce the causes of many diseases, and take every advantage for their removal, which an investigation of these may put in his power.

To conclude, the more our minds are disposed to do good to mankind in general, the more shall we be inclined to exercise the virtue of tenderness and care towards our patients in particular; and I am convinced our success, in many cases, will keep pace with so meritorious a conduct. Every practitioner, who has for any time been conversant with sick people, will

* See Zimmerman, *ut supra*.

will soon see, that to his own behaviour, in this respect, he may attribute much. I am persuaded, he will find this observation applicable, whether his practice be in the confined circle of a regimental hospital, or in the more enlarged sphere of an extensive neighbourhood.

CHAP.

CHAPTER IV.

SURGEONS CAUTIONED AGAINST SPENDING TOO MUCH TIME IN AMUSEMENTS WITH THE OFFICERS, LEST THEY THEREBY NEGLECT THEIR DUTY; AND OF THE IMPROPRIETY OF GRANTING THEM DOUBLE COMMISSIONS.

THOSE who live in the army are subject to many temptations. Men here always in a society distinct in itself, and having little connections with the rest of mankind, though dwelling in the midst of them ; at a distance from friends, and, therefore, with less restraint on their behaviour ; among companions of various dispositions and tempers, with whom they are, in some measure, obliged to associate ; and these, for the most part, young, and with their passions in their utmost vigour ; together with the gaiety and levity with which they see themselves every day surrounded, all which conspire to banish care, as well as serious reflection. Yet all this, though pleasing for the present, will depart, " like the baseless fabrick of a vision." It will, therefore, demand the surgeon's utmost prudence and fortitude, whose duty obliges him to reflect
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more than the rest of the corps, to observe a proper circumspection under these circumstances; nor will he find it an easy matter strictly to adhere to good resolutions, though entered into with earnestness, or resolved to be followed with the strictest punctuality.

I do not mean here, that the surgeon should avoid the company of the officers, or yet shun society at proper seasons, or seem morose, or affect a gravity unnatural for his years, and unmeaning in itself; this is equally as bad as too much levity, since it may induce a disagreeable severity of temper, by no means laudable, and point him out as an oddity, and a butt for the younger men to exercise their wit on; but, my meaning is, that he should endeavour to find the middle point between shunning, and courting their company; between the folly of too much levity, and an affected stiffness. As their pursuits as well as duty, and those incumbent on him, are so opposite, the less time he spends with the officers, the more will remain for the service of his patients. He will have the more leisure to peruse authors who have written on the diseases he may then have under his care; or to commit to writing such observations as the cases may have supplied him with,

with, for the improvement of his future practice. This will be a sufficient apology for his appearing seldom with them, either in sauntering about the streets and fields, or in their other parties of pleasure.

Every officer will respect a surgeon of good behaviour, and diligence in his profession. Every officer either does, or ought to treat with contempt, the contrary conduct. I am of opinion, how harsh soever the expression may sound, that a negligent surgeon should be considered among the corps in the same light as they hold a *coward*. He should be avoided as a disgrace, not only to them, but to the service; nay, to humanity. From whatever cause it proceeds, it should be marked with some stigma of reproach, some public token of disapprobation. When an officer behaves either in a *cowardly*, or otherwise ignoble manner, he is sent, as they call it, to *Conventry*, i. e. none of the corps will either speak to him, or suffer him to associate with them, till he makes a proper apology for his behaviour, if it be such as can admit of an apology. I could wish the same law was to extend to the surgeon, if ever he is detected in neglecting the sick, or other ill treatment. As to his not associating on all occasions with the
 2 officers,

officers, which we wish here to inculcate, the reflecting part of the corps will never blame him, nor treat him as of less consequence for being seldom of their parties. A greater cause of complaint they will have, if he acts a contrary part.

Besides, to use the words of an eminent author, * “ our attention becomes more perfect by the advantages we derive from a habit of observing. The mind, satisfied with its former discoveries, becomes always more desirous of improvement, in proportion as it extends its knowledge ;” for it is certainly true, that “ science is the clue by which the physician” (an army surgeon, as we shall endeavour to shew afterwards, should possess the knowledge of the physician) “ is enabled to penetrate into the labyrinth of nature.”

Is it to be supposed the surgeon who passes his mornings in walks of recreation, or the day in sports, and the evening, when the bottle does not intervene, at cards, billiards, or backgammon, can have the complaints of his sick soldiers much at heart? Without application he never can become tolerable, much

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* See Zimmerman on Experience in Physic.

less eminent, in his profession; for it is a wide field, and requires much cultivation. But if time be mispent as above, what remains for study? When he ought to read, or be engaged in reflecting on, and investigating the causes of diseases, perhaps he is amusing himself in the fields, if the weather permits, with some of the corps; or, instead of cultivating the reciprocal and professional communications of his brother surgeons, or other medical friends, and receiving and giving instructions, the hazard-table employs no small share of his time.

It is not meant by this, that recreations are entirely to be forbidden—far otherwise; a proper share of relaxation, like sleep to the body, will render the faculties of the mind more vigorous. It is too serious a matter, however, to spend a whole life in pastime. Recreation, then, may be taken even daily to a moderate degree; but, surely, reading and reflection ought not to be neglected. A mechanical routine of practice is of all others the most contemptible, whether in or out of the army. A man who has only one prescription for all diseases, is a quack to all intents and purposes; nor is he less so, whose head is
stuffed

stuffed only with prescriptions. A mechanical routine, also, it must be, unless a certain portion of our time be dedicated to the perusal of books, the examination of the progressive improvements made in the science, and the careful observation of phænomena at the patient's bed side.

"Without sound judgement," says a respectable author, * "the possession of a multiplicity of prescriptions is not merely useless, but likely to be of dangerous consequence. If a man had a whole dispensary by heart, which contained the most excellent prescriptions for all diseases, but had not understanding sufficient to discern the particulars of cases, and the difference of constitutions, and to vary his method accordingly, he would still be as unfit to practice physic, as a man who had learned the terms of art, and the common rules of navigation, but had never been at sea, would be to direct the management of a ship in a storm, or among rocks, or upon dangerous coasts."

It is a common adage, that a man will soon partake of the manners and behaviour of his company. Their pursuits, their amusements,

* Vid. Coe on Biliary Concretions, &c. p. 238.

ments, their inclinations, will become similar, as well as their conversation. Whatever be the leading passions of those we have been long intimate with, we fall insensibly into the same. This rule holds as well in virtue as in vice. Hence the utility of good examples in forming and directing this bias of the mind into a proper path; and hence, also, the pernicious effects of bad examples in producing the opposite disposition.

It is from considering the power of habit on the mind I have ventured these reflections; but I should be sorry to have it understood as insinuating any thing to the prejudice of officers. The conclusion I wish to draw is only this, that the more we converse and associate, in our leisure hours, with those of our own profession, the more will our minds be attached to it, and *vice versa*.

And this leads me to dissuade from the practice of granting surgeons double commissions, viz. that of both surgeon and officer. The same arguments we have already used against associating too much with the officers, to the prejudice of our patients, and diverting our attachment, and alienating the mind from our profession, may be applied here, with
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this addition, that the surgeon has not only a double duty to perform, but, instead of optional, as it was before, is now necessitated, from the nature of this additional commission, to be more frequently with the officers.

Though an officer may be said to spend an idle life, when compared to some other professions requiring a greater exertion of the mental faculties, yet the duties he must keep himself in readiness to perform, absorb a great share of his time. Parades must be attended; guards must be mounted; attention must be paid to dress; attention to the behaviour of the men; attention to their discipline; with many other things of this nature, known only to gentlemen of the army.* In the whole course of the day, there is very little time they can entirely call their own, *i. e.* they must never be far out of the way, and must be always in readiness. The surgeon, in common with the other subaltern officers, if he enjoys an officer's commission, must take his share of this duty; indeed they will insist on his taking it in turn. And, why should he not, since he enjoys the benefits arising from it? The duties of a surgeon, which, in general, we may call of far greater magnitude, he

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must

I speak here always of the foot service.

must also perform. But here we find the same danger and temptation of having the mind alienated. The application necessary for the former is small, when compared with what is absolutely necessary for the latter; and the unhappy patients, we fear, will likewise have reason to regret it.

I remember to have seen an instance of this in a militia corps, where the surgeon, who was also an acting officer, was detached from the regiment with the company to which he belonged, on a separate command, not in a medical, but a military capacity. A mate, in the same corps, has likewise two commissions: both may be detached at the same time on different stations. When this happens, what becomes of the sick of the rest of the regiment? These commands may be longer or shorter, according to the nature of the service; it may be, a day; a week; a month, &c. Suppose, on this occasion, he could persuade a brother officer to go in his stead, the commanding officer may not on all occasions be inclined to allow such change of duty; he may insist, that the *roaster* be regularly filled up, and every one take his turn. I have known a commanding officer refuse a
change

change of duty. His word is absolute. Right or wrong, it must be complied with, without any attempt to reason on the subject.

In the regular service, double commissions, of late, have been prohibited, perhaps for some such reasons as those I have given. In the militia this practice is universally allowed. The reason given for it is, that as this service is of a limited duration, for the war only, and surgeons there not entitled to half pay on dismissal, a second commission is granted as a kind of recompence; and properly, if it was understood as a perquisite; but, we apprehend, not for the good of the medical part of the service, in the manner things are at present conducted. No two professions whatever are more opposite in their natures, than that of a military and medical gentleman: the reason has already been pointed out. We all know, that the engagements of an officer require not much serious reflection; the medical man's duty requires it almost constantly.

If it is thought improper in the regular, may we not with propriety ask, why it is continued in the militia service? Have the surgeons there less to do in a medical capacity than the surgeons of the regulars?

In place thereof, we shall find, on enquiry, the contrary, since the militia regiments are, in general, *stronger* than the regulars, *i. e.* more numerous; and it must follow, that, in proportion, there will be more sick. The regular regiments are seldom compleat; the militia are, for the most part, compleat; because they can oblige the county to procure the complement of men, while the regulars must recruit by slow degrees, and by chance, at various distances and disadvantages. Although these are confined to England alone, while the regulars are obliged to march wherever the service requires, yet England is as much subject to disease as many other parts of the British dominions. Intermittents, and other febrile affections, rage in many parts of it endemically, as much nearly as in Holland. The militia are subjected both to camp and garrison duty, equally with the regulars, and, therefore, as liable to camp diseases; and these have, we know, often appeared among them, with all the violence they are generally observed to produce.* The venereal disease, that great plague of the army, is not found less frequent in England than in most other parts

* Vid Oeconom. Obs. on Mil. Dis.—1764.

parts of Europe. Do not all these call for a steady and regular attention, which cannot be so well given by a surgeon whose mind and time are divided between two professions, so opposite as these to each other?

I would not be understood, by what I have said, as taking from the militia surgeons a perquisite, if this second commission is to be considered as such. If it be thought, that a surgency of militia, on the same footing with the regulars, is not an equivalent to the other's chance of half-pay, let some other scheme be devised to make up the deficiencies; or, if this is still to be continued, let it be understood as a *snecure*, and no duty required from the surgeon to call his attention from the sick. It may be easily so regulated, that the duty shall fall on the rest of the subalterns, in the same manner as we find it among the regulars, when any of the officers are on the recruiting service. In this way there can be no objection to the augmentation of his pay, by an ensign's or lieutenant's commission; for, I have been of opinion, ever since it was my lot to be acquainted with the service, that the regulations, in this respect, of the regimental medical practice, I mean in as far as relates to pay, is neither adequate to the trouble of the office,

office, the expences of a liberal medical education, or, what is of equal consequence, is not such as to encourage men of any professional abilities to enter into it. Till regimental practitioners are placed on a more honourable footing, and their rank promoted, as well as their pay encreased, few, who deserve the name of dical practitioners, will engage in it. According to the system now in use, it matters not what their abilities are. The literate and illiterate are equally rewarded, or, more properly speaking, not rewarded at all. Since merit here can seldom distinguish itself, some other aids should be called in ; and these seem to be rank and pay, the only things in the army that can command respect, or attention ; and without these, his usefulness can never be so great.

If a man, not only in this, but in any other walk of life, who truly from his merit deserves attention, instead thereof finds neglect, it is apt to induce in him a real negligence ; “ he may despise those who are to be his
“ judges, and slacken his endeavours, equally
“ indignant either of their applause or re-
“ proach.”

I do not conceive the following opinion of the late eminent Dr. Hunter can apply to our
4 subject,

subject, though I am ready to allow it all due weight out of the army, and that chiefly from considering the nature of a regimental surgeon's situation, as already explained. He says, "An opinion, the child of spleen and idleness, has been propagated, which has done infinite prejudice to science, as well as virtue. They would have us believe, that merit is neglected, and that ignorance and knavery triumph in this world. Now, in *our profession*, it seems incontestible, that the man of abilities, and diligence, *always succeeds*. Ability, indeed, is not the only requisite; and a man may fail, who has nothing besides to recommend him; or who has some great disqualification, either of head or heart. But sick people are so desirous of life and health, that they always look out for ability; and, surely, the man who is not really able in his profession, will have the least chance of being thought so. In my opinion, a young man cannot cultivate a more important truth than this, that merit is sure of its reward in the world."*

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* Vid. Introd. Lect. p. 102.

Encouragement, however, is most certainly the pabulum of genius; it keeps emulation alive. Just praise animates. There are few who have not felt this. To withhold it where due, is like frost to the tender bud, which blasts the hopes of spring, and brings an untimely destruction

CHAP.

CHAPTER V.

OF INTOXICATION—OF ITS GREATER CRIMINALITY
IN THE SURGEON, THAN IN OTHERS OF THE CORPS.

IN the army, where so much conviviality reigns, it will be said, that to avoid intoxication, and even frequent intoxication, is no easy task. This however, I would, in a great degree, deny. I know, from experience, it may be avoided, whether by the officer or others; and, I am confident, it ought, on every occasion, by the surgeon. We acknowledge, there is more temptation in the army to intoxication, than in some other situations of life, but it is not greater than what prudence and firm resolution may overcome.

There are few vices that bring their own punishment more speedily after them than drunkenness. Every man will, in general, be respected according to the respect he has for himself. A drunkard has none for himself, and, therefore, ought to be left by the world without any.—But, to proceed.

The surgeon generally messes with the corps; on this account, it will be said, he may be
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more liable to temptation, and frequently compelled to drink more freely than he might otherwise chuse ; but I am unwilling to admit even this. Every man in these societies, as far, at least, as my knowledge or experience goes, may drink (particular occasions excepted) either in quantity or quality, what he chuses. Every man may likewise retire when he judges it convenient ; for no person seems to take any notice, though all the company observe it. This is true politeness, and strict good breeding. It must, however, be acknowledged, that all are not possessed of proper resolution, or government over their inclinations, to make this good use of the latitude the company grant.

Though I have spoken thus far in favour of the good breeding subsisting in the army, yet, I must own, there is, though not a direct, a strong indirect temptation to lead us into this vice, *i. e.* the hilarity that always subsists among a number of gentlemen, such as meet together at a mess ; the pleasantry that passes to and fro among them, where every one contributes his share to enliven the hour ; good wine, which produces good spirits, even among the dull and phlegmatic ; together with
use,

use, which improves the relish for liquor: these, I say, are temptations, which even the most guarded are not always able to resist—glass after glass passes, and one folly of wit after another flies round the table, which insensibly steals away our time, while the liquor itself never fails, in proportion, to steal away our senses!

“Of all vices,” says the author of a short essay lately published in a morning paper, “take heed of drunkenness. Other vices are but fruits of disordered affections; this disorders, nay banishes reason. Other vices but impair the soul; this demolishes her two chief faculties, the *understanding* and the *will*. Other vices make their own way; this makes way for all vices. He that is a drunkard is qualified for all vice.

“Many a soul, with great difficulty, lugs on a wretched and worn-out carcase to its daily rendezvous, who, perhaps, for many years, has been nothing else but the vintner’s conveyancer, to carry his liquor between the *tavern* and the *wall*.”

An officer may sit undeserving of reproach, and enjoy his company, provided he does not
fit

fit till intoxication overtakes him. His duty is at regular, stated periods; he knows when his turn comes, and will be prepared accordingly for it: besides, it is of that nature which neither requires, nor enjoins much abstinence. But it is far otherwise with the surgeon: his duty is at no stated hour; he is liable to be called out on all occasions; it may be, for aught he knows, the next moment. Should he be found incapable to perform it from drunkenness, I know of no punishment in the catalogue of martial laws too severe for him. Or, suppose he should not be called out from company, but left to retire of his own accord, when he finds himself growing intoxicated, he may, at this very improper time, through a sort of half recollection of what he intended in the hour of sobriety, visit some of his patients; may attempt to compound them medicines; and, in this state of sound judgment, commit essential mistakes. I have known accidents arise from this source, though, I thank heaven! never any of a serious nature. Yet, from the probability that such *may* take place, I am justifiable, in an essay of this nature, in mentioning it.

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I remember once to have seen a brother of the profession, in a state of too much elevation from wine, unluckily apply so large a quantity of sach. sat. as a repellent, to a person's groin, where a trifling excoriation, from too much walking and the heat of the weather, had happened, that the consequence was a gangrene, which could not be removed without considerable trouble, and even, for some time, rendered the patient's life doubtful.

In the beginning of 1783, I met with an account of a melancholy accident from intoxication, which, though it does not respect the faculty, I may be allowed to relate, as it is a farther proof of the pernicious effects of this vice, in those to whom any trust is committed. This accident happened in the hands of a nurse to a lying-in woman. About seven days after the lady had been brought to bed, the child grew somewhat indisposed. The physician was therefore consulted, who ordered it a dose of gentle physic. It was the nurse's business to administer it. Unhappily for the infant, she was intoxicated, and, in place of giving the medicine put into her care, in this state of insanity, she gave the child a dose of oil of thyme and laudanum, which had been

prepared for an application to a bruise. The tender babe, as might reasonably be expected, could not long survive so fatal a potion. May we not ask, whether an intoxicated prescriber would not have been as apt to commit an oversight in compounding medicines, as an intoxicated nurse in administering them? In this state they are both equally deprived of sound judgement, and, therefore neither of them to be implicitly depended on; but, should they voluntarily bring themselves into this condition, it would seem but justice to the public, to make them answerable, when sober, for their errors.

A proper degree of punishment might be followed with happy effects in preventing those to whom public trusts, of so material consequence to the happiness of individuals, are committed. With respect to it among army surgeons, not only individuals, in this way, may suffer, where these are found addicted to this vice, but the public service; and, therefore, the punishment would seem to demand even a higher degree of severity.

I have heard it urged in commendation of the abilities, as it is expressed, of certain persons of the profession, both *in* and *out* of the army,
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that they prescribed best when half drunk ; nay, I have met with those who contended for the truth of it. Such commendation, however, is the effect of ignorance—it should be reprobated—it is misplaced praise, and may sometimes prove injurious to the welfare of society. Will any man be so hardy as to maintain, that a madman can perform what requires the united force of reason and experience ? Can a man deprived of his reason coolly sit down, and give rational judgement in matters of life and death ? and are not the instruments of this sort immediately in the hands of a prescriber, by his prudent management of which, he may restore health, but by his imprudent use do much evil, if not even induce death ? But the prescriber has not in this moment, when his assistance is called for, that share of reason left which the part he is about to act requires. No man, I am confident, would be so regardless of his own safety, as to trust his barber in the same condition. Is it because a surgeon knew sufficiently well how to administer medicines when sober, that he can do the same when drunk ? If we were afraid of our throats in the above case, we have surely no less reason to tremble for the consequences

in this. The similitude may be called coarse, but it is *certainly* apposite. Every one knows that several of our most valuable medicines are poisons, and some of them both speedily active and fatal, in improper doses*.

Chance may, for a time, guide the hand of the one aright; and the other also may, in one of those drunken moments, happen to make up a good composition. To suppose this, is just within the verge of possibilities. None, however, will undertake to assert, that the same will repeatedly take place under the same circumstances. If this mode of reasoning be convincing, which, I flatter myself, it is, at first view, I hope none will be found hereafter so imprudent as either to maintain, that an intoxicated physician or surgeon can perform the duties of his employment so well, much less *better* than when sober, or to trust themselves under his care at such a time, if they can avoid it.

To praise a medical man for his sagacity, and discernment in his profession when drunk, is certainly the severest satire on him we can employ, and reprobates him in the most pointed

* Most medicines, indeed, are poisons, though all poisons are not medicines, as an ingenious author has expressed it.

pointed and forcible terms. The opinion of the ingenious Armstrong, respecting people in this condition, is very far from such ill-placed praise—Hear him on the subject—Speaking of drunkenness, he says,

“ Or in the rage of wine your hasty hand

“ Performs a deed to haunt you to your grave.”

Here he points out, how likely a man in this condition is to commit what he may repent to the latest hour of his life. He continues—

“ Add, that your means, your health, your parts decay ;

“ Your friends avoid you ; brutishly transformed,

“ They hardly know you ; or if one remains,

“ To wish you well, he wishes you in heaven.”

ART OF PRESERVING HEALTH.

Caution and accuracy, essentials in the profession, we cannot in this condition expect.

A person lately talking on this subject with me, declared as a fact, that in a certain late practitioner, a man of considerable judgment when not inebriated, this vice was so conspicuous, as frequently to give just alarm to the apothecary who compounded his prescriptions. So addicted to it did he become, that, in visiting patients, he would re-

fuse to prescribe till they brought him liquor. The neighbourhood entertained an high opinion of his abilities, and scrupled not to make the same apology for him we have already mentioned—that he prescribed best when almost intoxicated. In part, we may here allow, this might be fact ; for, perhaps, till he had drank a certain quantity, to give some stimulus to his cold and languid nerves, he was unfit for any thing, as most habitual drunkards are. Lo, the consequence ! every day the cup must be increased to produce the same effects. His apothecary, who, I am told, was a man of discernment, and who entertained a friendship for him, has called on him after a fit of his intoxication, and shewn him, in confidence, the prescriptions he had written while inebriated.—He has started when he read them ; and, my informer adds, has blessed God, and thanked the apothecary, that they had not been sent to the patient.—The example being thus held up, we hope, may deter others from an imitation, and prove as a beacon to prevent them from splitting on the same rock, or falling into this dangerous error beyond the bounds of moderation.

That

That persons in liquor, without hesitation, have done what would puzzle others as well as themselves, nay, what they would have refused to attempt when sober, I grant. Liquor gives an irregular flow to the spirits, which produces rashness ; but this is the very thing against which we have been so bitterly inveighing. Something may be done *now*, and, by *chance*, even *happily* done, which sobriety would have been cautious in undertaking. Perhaps the following fact may apply as an example. The reader may rely on its truth.

A gentleman of the profession, an acquaintance, went, at my request, one evening, in autumn, 1781, to supply my place, in delivering a woman, particular business obliging me to leave her, though then in a critical situation. It so happened, that he had this day made somewhat free with the glass ; yet not so much, in my opinion, as to incapacitate him for this or any professional duty. It proved to be a footling case. He set about it without hesitation, or once reflecting, that it was proper to bring down the arms into the birth before he proceeded to deliver. Notwithstanding this, the woman

was safely brought to bed, without the least accident either to herself or child. In most cases, both arms of the infant might have been broken, or some accident might have happened to the mother; or, from neglecting to turn the child in a proper position to allow the head to pass the pelvis with the most ease, other mischiefs might have ensued. That some or all of these did not take place, seems to be owing to nature, who, in this woman, had fortunately formed the pelvis, &c. of a larger capacity, and the child smaller, than common. She knew nothing of the danger of her escape, but concluded the business done with the greatest judgment; and next day, on my visiting her, bestowed large encomiums on the accoucher I sent.

So it fares with others. If a man, during the effects of the glass, should chance to succeed in any part of his profession which he undertakes, his employers will call him in again, whether drunk or sober. The gentleman I allude to in the above case, was ingenuous enough to tell me of it, and blame himself for the rashness of his attempt, and the danger he ran of doing mischief while so heated with wine; nor will he be offended to see it held
up

up here, as a *caveat* to others. Perhaps we conduce to the progressive improvement of our profession as much, if not more, in confessing our mistakes, as by publishing our successes. The quack, to vend his nostrum, trumps in every newspaper those cases where accident has rendered it successful; but as cautiously avoids telling the world the many *hundred lives* it has destroyed.

As the colonel is the head of the corps, the father of the family, so to speak, or, in his absence, the lieutenant-colonel, or major, it were well if whoever of them possesses the command, would take this subject under their more immediate consideration. A soldier is severely punished for drunkenness; why not extend it to other departments, where its mischievous effects may prove even of more magnitude? The vice in this department, as we have endeavoured to shew, may be followed by more unhappy consequences than may follow from the drunkenness of a private soldier.

Something of this nature might, perhaps, deter them from it, viz. that for every offence of this sort, *i. e.* for every time they were intoxicated, they should forfeit a certain num-

ber of days pay, to be added to the fund for sick wives of the soldiery before mentioned. A fine should, in like manner, be exacted from every one of the corps, who should by any means, *directly* or *indirectly*, endeavour to render the surgeon intoxicated *. Fines, of a pecuniary nature, are exacted from students at several of the universities, for non-conformity to the rules of these literary institutions. Perhaps they might be found to answer in the army, and compel compliance with such a law as we have here hinted at ; besides, they will be able to exercise more œconomy, if less be spent in liquor, a matter of no small importance to surgeons and subaltern officers.

I was told, some time ago, of a militia surgeon, during the late war, whom the colonel dismissed for this very vice. Nor could he have been cashiered on a more justifiable plea. If it was well founded, the colonel deserves the highest praise for depriving him
of

* It happens sometimes that in the army schemes are laid, by the younger and more giddy part of the officers, to intoxicate one another for *fun*, as they call it. It is not to be expected all the officers of a regiment are endowed with strict abstinence. Inclinations are as various as faces ; and where this coincides with temptation, it will frequently overcome the weaker restraints of virtuous principles.

of a station he so unworthily filled, and where he had it in his power to do so much mischief. It is remarkable, however, of the young man I am now hinting at, that only a few years before, when he entered the service, he was noted above others of the corps for his sobriety *. This will prove what the power of habit and example can produce.

The effect however produced by early example sometimes, though we fear rarely, induces contrary habits. Take the following facts as illustrations. A gentleman, both of whose parents had been so much addicted to this vice, as not only to destroy the domestic peace of the family, but also nearly to dissipate a very handsome property, determined, at a very early period of life, to avoid this pernicious habit. So early did he begin to put his resolution in practice, and so strictly, for near thirty years, has he adhered to it, that he does not recollect ever to have tasted any kind of spirituous or fermented liquor. Though a man of very good understanding, and without any reason to doubt his own determination,

* This I cannot absolutely assert as a fact; yet my informer was an officer formerly of the regiment, and now of the regulars, who had a good opportunity of knowing the circumstance.

determination, yet he has never for a moment broken through his original plan. We may add, that he has never been a single week confined from general disease during the whole course of his life.

A man who was in the continual habit of drunkenness, had his intellects so debased, that he even derived pleasure from seeing his children in the same state in which he fancied so much happiness to consist. He frequently made them partake of his beloved liquor, till they were often nearly killed by it. They were at this period very young; but as they grew up, they became remarkable for strict abstinence, and aversion from liquor of all kinds, through an abhorrence of what they remembered in their father.

Among the catalogue of bad habits, none, perhaps, is more easily contracted than drunkenness. A medical man cannot plead ignorance of the pernicious effects of spirituous liquors on the constitution, when used to excess: he knows well the great complication of evils they will produce on the different organs of the body; and he has this confirmed almost daily by the bad health, and many days of prolonged misery they have brought on many of his acquaintances.—Hear the opinion
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of a learned, and justly celebrated physician on the ill effects of wine on the health.—
 “Wine,” says he, “when immoderately used,
 “is to young people, what manure is to vegetation, which hastens the progress of the
 “fruit, but destroys the plant. Wine used
 “in early life is a poison. It undermines all
 “the principals of man, exhausts his powers,
 “destroys the faculties of his mind, and excites vomitings, fevers, phrenzy, madness,
 “convulsions, apoplexy, and sometimes even
 “death. It is the general effect of wine to
 “enervate the system by slow degrees, if men
 “habituate themselves to it in too great a
 “quantity, and very often to terminate in
 “dropsy, more commonly, however, it predisposes to inflammatory diseases, to gout,
 “asthma, dropsy, and apoplexy *.”—He might have added a number of other complaints to his catalogue.—Not only hepatic complaints, loss of appetite, &c. from a thickening of the coats of the stomach, but even loss of virility. Bacon tells us he has seen the ancient opinions of the effects of wine on generation confirmed by experience.

It

* Vid. Zimmerman on Experience in Physic. Vol. II. p. 209.

It is his opinion, that great drinkers lose their virility.—I have seen the stomach of a drunkard dissected in a public anatomical theatre, where the professor demonstrated the coats of this organ to be thickened a full inch. Among the heathens, we are told, he was accounted the best man, who spent more oil in his lamp than wine in the bottle.

I shall now lay before my reader the opinion and admonition of a senior officer on this very subject, who has published some of the most useful advices to officers in general that have hitherto fallen in my way. I fear his book is too little known, and too little read, among the military. It will apply to all ranks of men, and therefore cannot be improperly introduced in this place.

“How many men,” says he, “have I seen
 “so addicted to this vice, that, in the morn-
 “ing, they could not lift their trembling
 “hands to their heads, write their own
 “names, however necessary, or hardly give
 “a rational answer, until they had made
 “themselves half drunk again! It is truly a
 “miserable reflection, to think that men
 “should reduce themselves to the necessity
 “of repeating the crime by which they have
 “drowned

“ drowned their senses, and destroyed their
 “ faculties, in order to be able, in a wretched
 “ degree, to make use of that little reason and
 “ strength they have left themselves.

“ I know it may be objected, that several
 “ men have been great fops, and yet have
 “ preserved their senses and strength to a good
 “ old age. To this I answer, that one swallow
 “ does not make a summer; and that
 “ though there are a few that this happens
 “ to, yet are there infinitely greater numbers
 “ who have met with a contrary fate. But,
 “ allowing it should not be hurtful to the
 “ constitution of some, is that any reason it
 “ should be practised by all? Some men have
 “ taken poison, or picked a pocket with impunity:
 “ shall I therefore cut a purse, or
 “ swallow mercury? This argument is certainly
 “ inconclusive; but, abstracted from all
 “ this, I have another reason to offer to military
 “ men, especially subalterns, who have
 “ no other income to help them but their pay.
 “ Drinking cannot be pursued without great
 “ expences. Now, where is the fund to enable
 “ them to do this? Their pay, with all
 “ the œconomy they are masters of, cannot.
 “ They must, then, be guilty of practices I
 “ am

“ am a stranger to, or run into debt. If the
 “ first is discovered, they are dismissed the
 “ service with shame ; if the last, they are
 “ unable to pay : they must sell their com-
 “ missions, and so part with the only means
 “ they had of living ; and all this rather than
 “ break off in time so beastly a vice.”

He proceeds considerably farther inveigh-
 ing against it, and particularly points out the
 pernicious effects of dram drinking in a morn-
 ing ; a vice he had nearly fallen into from the
 example, and even *advice*, of two senior officers
 (he having not long before entered the army)
 who took him with them at their *meridian*
hour, under a pretence of its getting him a
 stomach for his dinner ; and then mentions
 his timely escape, which he relates at length,
 as a lesson to others.

We have said before, it is customary in the
 army for the surgeon to mess with the corps.
 I am rather inclined to think, it would be a
 better plan if he was not to mess with them,
 the better to escape this temptation. If he
 was excluded for this reason, or chose to ex-
 clude himself, unless occasionally, no officer
 would treat him with the less respect. On
 this head, however, I am cautious of speak-
 ing,

ing, lest my brethren of the military medical profession should think me too particular, and over rigid in my regulations. I am certain of one thing, they would live much cheaper, nor yet be less happy. When I first entered the service, I abstained, almost totally, for some time, from the company, I mean the convivial company, of the officers. Some looked on it at first as abstemiousness, and parsimony; others did not hesitate to attribute it to pride. When it came to my knowledge, I related to them the cause that deprived me so frequently of their company, viz. that having then on the list a number of patients, it occupied most of my time to consult books, and prescribe for them; this was the footing I put it on, which, in a great measure, was the fact; though, to avoid temptation, was likewise a part, but a part which I thought it then imprudent to confess. They revoked now their former opinion; and, I am confident, that from this alone, I gained the esteem of several, who might have thought differently of me before. Though I never after this abstained from the company of officers, when occasion required, I never to this hour courted it; yet few of my standing,

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perhaps,

perhaps, ever received greater marks of civility from a set of officers, during the few years I lived among them. I place not this to my deserts, but to the good dispositions of my fellow officers, and mention it as a farther illustration of the doctrine I have now delivered, and would wish to support.

C H A P.

CHAPTER VI.

OF THE MEDICINES, AND THEIR DOSES.

THE medicines allotted for the privates, are not, we fear, always kept either in proper quantity or well chosen. On this head the officers, for the most part, complain grievously. There is, at least in several regiments, if I mistake not, some reason for their murmurs. We have pointed out already* what each private pays towards a fund for a medicine chest. The sum is more than sufficient for the purchase of medicines of the best quality, as well as variety, for the number of sick of a regiment. The surgeon is always allowed medicine money for the full establishment of the regiment: when the actual number is small, which is often the case, the sick are in proportion fewer, which must save both medicines and money.

The money has never been found entirely exhausted, even in the most sickly seasons, when the regiment has been numerous, and the men well supplied with medicines; on

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* Vid. Introduction.

the contrary, it will appear, that not a third of it is expended for this end, in regiments where most complaints called for it, and where the surgeon could not be accused of acting niggardly. At an average for four years, the money applied to this use, in a regiment where I had an opportunity of knowing the fact, did not amount to much above twenty guineas a year, though, for a great part of this time, it was upwards of six hundred strong. The sum allowed for one year by the late establishment in this corps, was eighty pounds nine shillings, as we have shewn by a calculation already made.* Nay, I should be nearer the truth did I state the medicines at an average much lower.† It is natural, then, to enquire, what becomes of the rest?—the answer is obvious—it goes as a perquisite to the surgeon. Is there not a perceptible error here? Does it not seem improper to rob the poor soldier of the pittance which government allots him, in order that it may become a perquisite of office to one who has his stipulated pay? When the soldier is ill, by this management,

* Vid. Introduction.—The late regulation and peace establishment has reduced it to 70*l.* a year.

† About sixteen guineas a year.

ment, little or nothing is left for the purchase of medicines ; and too often as little offered. This reflection I should be sorry to extend to all the army. I am convinced there are many in the service whose humanity and conscientious care of their patients are as exemplary, as their education and abilities in their profession are respectable ; but I know assuredly, also, that there are many palpable abuses in this part.

But the error lies partly in government, by allowing the surgeon to have the management of this money ; and partly in his scanty pay. We have given it as our opinion already, that the nation has dealt very partially with the surgeon, not only in what respects his pay, but his rank. His subsistence is mean, and inadequate to his services. Let me not, therefore, throw indiscriminately any ungenerous reflections on my brethren of the profession. Their minds, I would hope, are far superior to any sordid views ; but since they are placed in a station so expensive, and on a stipend so contracted, so greatly inadequate to their necessary expences, to save for their own use what can be conveniently spared from the medicine money, is not culpable in them : it

is only wrong when these bounds are exceeded. Poverty is one of the greatest temptations to the commission of frauds: and here, too, it is found to do evil. We know, that in regimental practice it often happens, that only some of the cheapest and coarsest articles of the materia medica are kept in the medicine chest. But another error, for which we cannot offer so good an apology, is, that even when it is proper to administer any of these, they are seldom prepared in a way that can secure their efficacy, or ensure their success.

It is well known, that as much art and knowledge is often necessary in preparing a medicine, and uniting it with proper vehicles to make it sit easy on the stomach, as in finding out what class of medicines to exhibit. We are obliged, very frequently, to struggle with delicate habits, and irritable stomachs, formed so by nature, and now doubly so by disease. How often, in such cases, do we find it expedient to vary our formula, without essentially changing our medicine? On other occasions, it must be altered almost in every respect. If, for instance, our patient cannot take it in a liquid, we must contrive it in a more solid form.—

form.—One cannot take an electuary; another finds it difficult to swallow a pill: and thus are we obliged to comply with the various tastes and antipathies of our patients. When he nauseates one form, we must have recourse to another; and so on, till we find one that will sit easy, and otherwise answer our purpose. For, if a medicine be rejected as soon as taken, it can never prove of efficacy: thus will our intentions be frustrated. But, in the army, we cannot, for the most part, so readily adapt the medicine to the palate, because we have few varieties to make a selection from.

It may be still urged, notwithstanding what has already been said, that medicines here should be of the cheapest sort, as best agreeing with the fund for purchasing them; and they may be allowed of a coarse quality, since they are only for soldiers, men little accustomed to delicate living, or nice medicines; and that if the general tendency of operation be the same, the same effects, they will say, must unquestionably follow.

The first has already been answered, by shewing that the money is far from being all expended; therefore, better medicines may,

and ought to be purchased, where they are wanted, and the surgeon's salary augmented from a different fund. With respect to the other, I apprehend, it is likewise sufficiently answered in a former chapter, by what was said relative to a soldier's nice feelings.* For though he lives low, and fares badly, yet nature has often formed him with organs as nice, and as mobile as his richer and more delicately faring neighbour. And though it will be found, that there are in the ranks, men of very robust constitutions, capable of swallowing and digesting any thing of the kind offered them, yet it will not apply to the generality. I have found men among the soldiery altogether as delicate, in regard to taking medicines, and those even apparently robust men, as any officer in the corps; nay, with stomachs much more irritable. To such persons, a coarse ill-prepared medicine is as bad as none, because it cannot be retained: in place of proving serviceable, it may create new disturbances, and, perhaps, occasion much sickness.

A practitioner may chuse his medicines very judiciously, yet err greatly in the method of
prepa-

* Vid. Chap. III.

preparation or exhibition. Hence one man's success beyond that of another with the same medicine, by the difference alone of preparation or dosing. Suppose even both were to give the same quantity of the same medicine, the very time of exhibition will make a difference in many cases, and prove the superior sagacity of the one above that of the other. From hence we may draw the following conclusion—that the same remedy, in the hands of different persons, shall produce very opposite effects; the one will be able to relieve, the other only aggravate the complaint thereby. This may be said also to belong to the penetration and genius of the prescriber; but medicines being the medium he uses to attain his purposes, if they be bad, he is defeated.

While, however, I contend for a better choice of medicines in regimental practice, I do not mean that the most expensive are always necessary; substitutes, answering the end with equal propriety, may be employed in place of several of the more expensive drugs, while, at the same time, they are not the less palatable or efficacious.

To

To form a dispensatory calculated for the use of regimental surgeons, might, probably, prove an useful work. In general, however, we may follow the plan laid down for paupers out of the army. We have several forms of pharmacopoeiæ pauperum, where though we find, that the absolutely rough and ill-prepared medicines are excluded, yet several of a cheap sort are admitted. It would be preposterous for a regimental surgeon to keep so dear a drug as musk, or even castor, in his chest, when several cheaper of the antispasmodic class are to be found, by which his intentions may be altogether as speedily answered. At the same time, let no substitute be depended on when the patient's case may absolutely call for a better, or where a protraction of the cure, for the want of such, may be apprehended; for, in some cases, we know not what a day may bring forth: this rule should be laid down as fundamental—never to trifle with health for the sake of saving a shilling. To do so is unjustifiable; and, in the end, will seldom fail to injure the surgeon's character.

With respect to some of the substitutes, he will find strong decoctions of Lintseed answer,

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in many cases, among the soldiery, as well as Gum Arabic, which is far more expensive, at least mixed with a small proportion of the solution of this gum. Decoctions even of the common Malva, which he may gather almost every where, or of Marsh Mallow roots, when he can find them, will make drinks possessing all the qualities of more expensive mucilaginous medicines. An electuary formed of the leaves of Cicutæ, will have the same effects as the powder made from them: this plant he can gather at almost all seasons, and every where, and thus save himself the expence of powder, and the trouble of preparing it.*

Those chymical and galenical medicines which he cannot prepare himself, but must purchase from druggists, he should be particularly careful in the choice of: these should constantly be of the best quality. Let him remember, that there is no œconomy in buying drugs at the cheapest rate, since they cannot be genuine: his patient may be the longer on the sick list, and his trouble increased.

* I have found the use of this article of the *Materia Medica* very serviceable in a variety of cases, internally exhibited, and externally used as a fomentation; and in poultices with coarse flour or oatmeal.

creased. For instance, can he expect to buy Peruvian Bark at seven shillings and sixpence the pound as good as what he must purchase at a druggist's, where genuine bark is kept, perhaps at as much more? A smaller quantity will not only answer the purpose better, but the medicine may be depended on, as far as bark can succeed in the case. Much of the disrepute this medicine has fallen into of late is owing to the cheap and sophisticated bark practitioners use. We might make the same remark on some of the other medicines, among which is Rhubarb.

His unguents he should prepare always himself, and likewise in small quantities at a time; for, if long kept, they will prove rancid: besides, he will find it necessary to vary the proportions of several of these to answer his intentions. If he buys them, he will generally find them too hard, because, neither the college proportions are exactly kept, nor the ingredients themselves always used. For instance, in the different fats and oils, the cheapest will always be used, sometimes much to the detriment of the unguent. Where hog's lard is ordered, mutton fat must not be substituted. He will find lintseed oil
(unless

(unless for internal use) no improper substitute for olive oil, which is considerably more expensive; but, for internal exhibition, the best salad oil should constantly be employed.

Among the unguents, liniments, and cerates, he will find, perhaps, the following the most useful: * *Linim. Simplex. Ceratum Simplex. Ung. Basil. Flav. Ung. Epispast. Ung. à Cerusa. vulgo Album. Ung. Saturnin. Cerat. à Lapid. Calamin. Ung. ex Erugine. Ung. Coeruleum. Ung. Antipso-ricum.* Perhaps even some of these may be dispensed with.—Among the emplastra, the *Emplast. Commun. Emplast. Adhesiv. Emplast. Foetid.*—This last he will find more useful among the soldiers wives than among the men. In some stomachic ailments it may have its use even among the privates themselves.—*Emplast. Veficator.* cannot be dispensed with.—He should keep of the powdered *Cantharides* in his chest, and make his *Ung. Epispast.* occasionally as he wants it. He can make it with more accuracy from the
flies

* I have left these names as they stood in the first edition; for though in our present pharmacopoeia they are different, yet the index has preserved the synonymes—there both old and new may be found.

flies than by mixing the Ung. Basil. Flav. and Emplaf. Vesicat. together.

Among the pills he should keep the following: the Pil. Plumer. Pil. Pacific. Pil. Stomach.—This last may have its uses among the women of the regiment, more than among their husbands; for he should not neglect them: nay, though his duty does not oblige him either to give them advice or medicines, his humanity may call on him. We must not omit Pil. ex Hydrarg. or the common Mercurial Pil—one which he will find more use for than any other yet mentioned. The Pil. Scillit. should also be kept: dropsies often occur, and this may have its use in the disease.

Among the electuaries he must not omit the Elect. Cardiac. vulgo Confect. Card.—this is a very elegant and useful composition. Elect. Japonic. vulgo Confect. Japonic. In diarrhoeas, and the like, it is often administered with the happiest success.—Elect. Lenitiv.—Elect. Thebaic. is also an useful composition, and an elegant formula of administering opium, united with aromatics.

Among the powders; Pulv. Diaromaton, vulgo Species Aromatica: this is also a very
2 elegant

elegant composition, and of great use.—Pulv. è Jallap. Comp. he may make occasionally as he wants it. As head purges may be found useful in removing some species of head-achs, the Pulv. Sternutat. may also be kept; nor must he neglect the Pulv. Stiptic. and, above all, let him be provided with the Pulv. Dover. five Sudorific.—Thus far of *compound* powders.

Among the *simple*, we must not neglect Rhubarb, and Jallap.—A few Syrups may suffice for army practice. Simple syrup will be most used; but, as it will spoil in keeping, a proper quantity of coarse sugar always at hand, for sweetening draughts, &c. will answer as well as a more expensive syrup of fine sugar. I would not have him omit the Syr. Scillit.—A Syrup of Lemon Juice may be added, but, perhaps, there is less occasion for it—it may, however, be compounded *pro re nata*, by dissolving brown sugar in water, and adding the lemon juice. I omit Syr. e Diacod. since other formulæ of opiates will answer as well.

Of the antimonial preparations the following will be sufficient.—First, as the chief, Tart. Antimon. vulgo T. Emet.—As
Vitrum

Vitrum Cerat. Antimon. has been found useful in dysentery,* it may be kept; and as James's Powders are sometimes an useful medicine, and the composition now known, they may likewise have a place.—If he chuses, he may add the Vin. Antimoniale. It is not expensive.

Among the mercurial preparations with the acids, comes Corros. Sublim. or Merc. Sublim. Corrosiv. Alb. The last edition of the Edinburgh Pharmacopoeia has given a formula for the solution, which is, Corros. Sublim. gr. vj. Sal. Ammon. gr. xij. solv. in aq. distill. libra una.—Mercurius Dulcis, or Calomel, is an useful preparation.—Also, Merc. Calcinat. and Merc. Precipitat. Alb.—This last will be found an useful ingredient in ointments for cutaneous eruptions.—Merc. Corros. Ruber: a most useful escharotic.† — Of the preparations of silver, the Lunar Caustic.—Among his venereal patients he will frequently have occasion to use this.—Of the dry preparations of lead, Sach. Sat.—Of the preparations of iron, Vitriol.

* Vid. Med. Ess. Edinb.

† Some think the common pill, made with crude mercury, may supply the place of all other more expensive preparations for internal use. I have often found it necessary to vary my formulae, and hence I have mentioned different preparations.

triol. Mart. or Green Copperas, as it is commonly called.—Among those of zinc, it will be as well to keep both the Flowers and Vitriol Alb. since neither are expensive. The last is so useful, I hold it among the indispensable medicines.—The Aq. Vitriolic. is also useful: this he can compound occasionally. And so may also the Aq. Stiptic. have a place when he finds it necessary, as well as the Aq. Sappharina, if he has ophthalmias wherein he may judge its application proper. Ophthalmias are very common among the men, and I have often found them very troublesome: they proceed from various causes—not uncommonly from a venereal one.

Among the neutral salts, Sal Glauberi and Sal Cathart. Amar. are the most useful. Sal Polychrest. and Tart. Solubil. he may use occasionally, if he chuses. Neither the Vegetable fixed Alkal. nor the Volatile must be omitted. For the Fossil Alkali he may find but little use.—Sp. Volat. Foetid. Spirit Volat. Aromat. will likewise be useful; Spir. Vitriol. Dulc.* Sp. Nitri. Dulc. also Vinegar, both common and distilled. The Spir. C. C. with oil, makes a
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* Sp. Vitri. Dulc. has lately been used with great success in fevers,

good liniment in the army for pains, and even sprains. If made with coarse oil, it answers sufficiently well.—In place of spirituous waters, he will find it cheaper, and not less effectual, to use the essential Oil of Peppermint, or some such: a few drops of this will communicate the same flavour as if he had made use of a large quantity of common distilled water from the same herb.

He will find several of the tinctures of high importance. Tinct. Amar. T. Aromat. T. Cinnamon. T. Cort. Peruv. T. Foetid. T. Jal-lap, T. Japonic. T. Myrrh. T. Rhei. T. Theb. T. Senn. Compos. T. Ipecacuan. Elix. Vitriol. Acid. Linim. vulgo Balf. Anodyn. and, if he pleases, he may add Linim. Sapon. as also Balf. Traumat. Elix. Guaiac. Volatill.—He may add to these as many others as he shall think proper.—Acet. Scillit. is very useful. If he keeps these tinctures, the wines may be dispensed with.

Of the decoctions, the Decoct. Commun. and the Decoct. Hordei.—perhaps this last is sufficient. I need not tell even the young and less experienced army practitioner, that these, and many others, are to be prepared as occasion requires; every one knows that se-

veral of them cannot be kept in a medicinal chest. As he must practice among the officers, the Decoct. Lignor. can be prepared, if he judges it necessary, for any of them. Saraparilla is dear, and, unless to officers, he may omit it in his pharmacopœiæ. What medicines are ordered for them they generally pay for. Both the Common and Arabic Emulsion may be sometimes necessary: neither of them is expensive.—He may keep Mag. Alb. because he will find use for it in the cases of children.

Among the infusions, that of Tamarinds and Senna may suffice. This he must also prepare pro re nata. The Mucilage of Gum Arabic will likewise be necessary both in forming pills, and mixing with other medicines, therefore he must never be without the Gum. I have found, in soldiers coughs, Lac Ammon. and T. Theb. an excellent remedy; therefore, the G. Ammon must be one of the articles of the regimental materia medica. Of the conserves, that of roses may be enough. Crem. Tart. must not be omitted; neither Manna, Sperm. Ceti, nor Sal Nitri. Of the aromatics, we may likewise add Nutmeg and Ginger, in powder. Likewise, both the root

of Liquorice, and the extract, *i. e.* what goes by the name of Spanish Juice. It will be proper to have Balf. Copaib. Spanish Soap, Camphor; nor must we omit Fl. Sulph. Pulv. Heleb. Alb. and Crud. Sal Ammon. These I have often used with great success, in form of unguents, in cutaneous eruptions. I do not give these as a list of all the medicines he should keep in his chest: several of them he can purchase in every quarters where they march to, as genuine as in London. These, variously compounded, as his judgment leads, for which no rules can be laid down, will answer most cases he may meet with. If he wants more, he will find enough of formulæ in pharmacopœias. If he finds here some which he thinks he may never want, let them be omitted; but, the more of them he possesses, he will find his chest the richer.—Besides these, Leather, old Cloth, Rollers, Tow, and Charpè, are to be added.

Every regimental surgeon should possess two chests—one for his tinctures, and nicer preparations; the other for those where less care in their keeping is necessary. The common chests in use in the army seem very well adapted: perhaps their conveniences cannot be

blood vessels. Ruptures of this kind taking place in some parts of the body, as in the brain *, may produce immediate death. We can easily suppose, that the straining occasioned by the efforts to vomit, may detain the blood in the vessels of this organ in greater quantity; we know that the vessels there are extremely numerous; that the structure is delicate; that many of them lie loose, at least are enveloped in so tender parts, as easily to give way to an impulse. Apoplexy proves that ruptures take place in the vessels of the brain †. Pains in the spleen may likewise follow from violent vomiting, since this organ admits, in a similar manner, a greater quantity of blood in proportion to the rest of the body. The splenic artery is frequently found diseased, and, therefore, the more easily ruptured.

* Emetici actio violenta, ad capitis morbos gignendos apta nata est.—De Haen Rat. Med. pars prim. Contin. p. 185.

† Dr. Monro is of opinion, that not above a tenth part of the whole mass of blood is circulated within the head, but which is nearly four times more than is circulated in the rest of the aortic system, when the area of the internal carotid, and vertebral arteries, are compared with the area of the trunk of the descending aorta.—See Observations on the Nervous System, p. 3.

ruptured. Whether its tortuosity adds any thing to this, is difficult to say; it is, beyond question, the most convoluted vessel in the body, and is very subject to ossifications. We know that violent running, which hurries the circulation, not only produces pains in the spleen, but in the liver. Violent straining may exert a force on these productive of the evil we have mentioned; nay, I have heard a reader of anatomical lectures,* of some experience, assert, in his lecture room, he knew a case of a rupture of the vessels of the spleen from the violence of emetics. Violent efforts to vomit have caused even a rupture of the œsophagus, and opened a communication between it and the abdomen: it was this that killed the Baron Van Wassenaer, Admiral of Holland †.

Ruptures of the vessels of the stomach have likewise proved fatal from the same cause. The death of the famous Voltaire was induced by an hæmatemesis, and though not by a previous emetic, yet in a way somewhat similar.—In the act of declaiming, and in

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violent

* Mr. Cruikshank.

† Vid. Boerhaav. Opera.

Violent agitation, instructing the actors who were to perform his tragedy of Irene, he was seized with a fatal vomiting of blood.

The late lieutenant-colonel D——, died from a similar cause. He was a man of gentle manners, and remarkable in the corps where he served for good nature, so that he went by the name of Good-natured D—. From various causes, and uneasinesses that befel him, his health was rendered precarious: he became valetudinary, and his temper changed with the weakened state of his body, to very irritable and irascible.—In the beginning of April, 1785, from some previous vexation, a vomiting of blood came suddenly on—he fainted—the vomiting stopped.—Some officious persons about him at the time, alarmed at this, and ignorant of the consequences, gave him a considerable quantity of Sp. C. C. which, the instant it got down, induced again such an effort to vomit, that, perhaps, more than a pound of blood came up at once.—He was now placed in an horizontal position, and, apparently, almost dead; but, by proper care, he recovered so well, in about ten days, as to be able to go abroad. I predicted that
a dropsy

a dropfy would moft likely enfue, from the lofs already fufained, and made this my reafon for objecting to V. S. which was then propofed by one of the gentlemen who attended with me, and who had been prefent at the evacuation of the laft quantity of blood occafioned by the injudicious exhibition of the Volat. Sp.—They yielded—no more was taken away—but, in a very fhort time after, the abdomen became evidently enlarged.—This daily encreafed—and, in the fpace of about two months, after being tapped, and a quantity of water drawn off, he died.—This cafe comes in as a nearer example; for, the effort of vomiting, wherein the laft quantity of blood was loft, might be held as a principal caufe of the fatal event. From the lofs of the firft, the patient might have died *dropfical*, or by fome other *lingering complaint*, but, from fo fudden, and fo great a lofs, added immediately to the firft, it was impoffible he could long furvive.

In June laft, I was called to a young lady in the neighbourhood where I refide, who had been long valetudinary, but, for three days before, had been almoft constantly vomiting, from a morbid irritability of the ftomach,
which

which not only alarmed her friends, but the surgeon who attended and myself. She had not indeed vomited much blood—what came up was in streaks, but sufficient to make us apprehensive, if we could not allay the inordinate action, that a rupture of some of the larger vessels might ensue, and a fatal hæmorrhage take place—but our endeavours to appease it, thank Heaven! were crowned with success. In little more than a month after, she was restored to perfect health.—These are examples to shew the alarming tendency of long-continued and violent efforts to vomit, in whatever manner induced.

I shall mention another example. A person who had been cahectic for several years, but not so much affected as to be prevented from doing the duties of his station, which was that of a servant, was seized with febrile symptoms. The same day he had been engaged in business that exposed him to considerable degrees both of heat and cold, united with moisture: that night he was very restless, the fever increased, which had been preceded by a strong degree of cold shivering, with his cough augmented, and pain in the breast.

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No medical advice was had recourse to till the next evening; then it was judged necessary to give him an emetic: the operation of this was more violent than was intended, and continued during the remainder of the day and that night; during which time he threw up some quantity of blood, which appeared to be the effect of violent straining: the operation downwards was not less than that upwards, so that it left him in a weak and debilitated condition. Pain and sinking, as the patient expressed it, was now felt in the region of the stomach; this was succeeded by dyspnœa to such a degree, as nearly to produce suffocation. For some minutes these fits, each of which continued more than a quarter of an hour at a time, were frequently reiterated, while not only the countenance, but the lower and upper extremities, appeared black from the stoppage of circulation and inability of inspiration, rendering it doubtful to the by-standers whether he could recover.

The fit generally went off by an expulsion of flatus. From the beginning of the disease till the third day, no food of any kind had

had been taken, and the irritability of the stomach by the emetic had been rendered great. When he had strength to cough, large quantities of mucus, thick and ropy, tinged with blood, and deeply yellow, were thrown up, proving that the secretion of the liver had been much disturbed, and the bile regurgitating into the stomach, instead of its natural passage downwards.

It would appear, as I have already said, that great part of this was induced by the violence of the emetic. Had it been ordered *partitis vicibus*, and as soon as the operation began, desisting from giving the remainder of the potion, the above severe effects might have been obviated.

The gentleman who gave this emetic had been led into the mistake by his observing, that a draught of a similar kind, which had been given some months before to the same person, had not operated by the mouth, but run off by stool; and concluded thence, that a larger portion was necessary now to produce the desired effect. Though this example is not so strong in point as some I have already related, yet it will prove the degree of circumspection necessary on such occasions.

But

But should such serious and fatal accidents not happen as we have described in some of the above cases, troublesome hæmorrhages may follow, which, though not attended, with so much danger, may disturb and frighten the patient. Should only some of the vessels running through the sneideirean membrane be opened, it proves unpleasant, perhaps, sometimes, even hazardous. I have repeatedly seen violent hæmorrhages at the nose during the operation of an emetic. Such accidents never fail to deter the patient, in future, from the use of emetics, be their administration ever so necessary.

I have sometimes seen this active preparation of antimony dealt out at random, being carried in a small phial in the pocket, and administered by guess, without the trouble of weighing. A very little pains might have prevented this unsafe method of using it, *i. e.* by having always a number of accurate doses previously weighed, wrapped up, and kept in the pocket, till occasion called for them in visits to the sick in quarters. These could as easily be carried about to save an immediate journey back to the surgery, as a phial, and with much more safety in the exhibition. But,
even

even in this way, it will be safest to direct it to be dissolved in a certain quantity of water, and taken *partitis vicibus*; for, according to the strength of the T. Emet. then in our possession, and the quantity of acid on the stomach, will its action be either greater or less. The same method may be used with jallap, *i. e.* having the doses weighed; and the same still with some other active medicines, which I have seen, too often, in the army, administered in this vague and random way.

If, in this *guess method*, through fear of giving too much, we give too little, the effects we intended cannot take place; and either time is lost, or worse mischief done: the patient, instead of being better, may be rendered much worse. T. Emet. will afford a good example here also. Let us suppose we intend full vomiting; that from the symptoms of the case it is thought necessary. We administer the emetic in the random way—the quantity is too small. We call the next day to know how it operated—and, lo! instead of puking, it purged.—The patient is now much worse—his pulse is low and feeble—his strength is much exhausted.—Observe what

is done!—Perhaps it may not be in our power to raise the pulse, or recover that strength which we lost by this misconduct. But the over-dosing is a thing that is more likely to happen, and will be what we have most to fear.

All these inconveniences may be avoided by the method already pointed out, *i. e.* by weighing, and, those of more violent operation, with the greatest nicety. If our scales, however, be bad, we had just as well be without them. The best are apt to contract rust, if not carefully prevented by keeping them dry and clean. The air itself contains enough of acid to corrode them, with moisture enough likewise to give it action. The smallest deviation from an even ballance, will prevent them from serving nice purposes. The bad situations in which a regimental surgeon is often placed, with respect to his hospital and surgery room, will render this more liable to happen; but for this very reason he should be more careful to clean them and keep them from dampness or dirt. Some may look on this as a trivial matter; but, whoever considers what has already been said on the activity of medicines, and the great variety in
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the effects a small increase or decrease of the quantity makes, will be of a different opinion.

What has been said of T. Emet. is to be understood of opium. The strained opium is what I have in view. It should no more be administered at random, than the other. The bulk of a grain, or a grain and half, the most common dose, is very small, and may easily be too much augmented without the eye perceiving it. The L. Laud. we shall allow him to carry in a small phial, the dose of it being ascertained by drops. Pulv. Doveri is another I have seen exhibited, as also Pulv. Jallap. in this unwarrantable random way to soldiers.

More might still be mentioned; but we hope these will suffice, and point out, to such as are about to enter the army, the impropriety of imitating such careless practice: nor ever to listen to the common, but deceitful tale, that a soldier's constitution far exceeding others in strength, any thing in the way of medicine *may do for him*. Language of this sort can only proceed from ignorance; and to believe it, and practice accordingly, must end in disgrace.

CHAPTER VII.

OF DISSECTIONS.

WHEN we consider that many of the gentlemen in the regimental department of medicine entered the service before they were properly initiated in the principles of their profession, it will not appear strange, if dissections be but little prosecuted in many regiments, especially among young practitioners of this description. To inspect dead bodies, so as to reap advantage from it, is not only attended with labour, but requires an adequate proportion of skill. The want of sufficient anatomical knowledge may deter many, and, in some degree, account for the neglect of this branch.

No place, however, is better adapted for prosecuting dissections than the army, from the frequent deaths that must take place among such a number of men, I mean where more regiments than one (as is often the case in time of war) lie together. But though they cannot happen so often in single regiments,*

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yet

* I have seen a year pass with but one death out of upwards of 600 men; but I have seen seven happen in the same space, in sickly seasons, and from other uniting causes.

yet many opportunities occur there also. Above all, the total disposal of the bodies at the commanding officer's pleasure, renders it extremely easy; for the surgeon, when a patient dies, need only ask, and he will obtain leave to inspect it.

“ The more we know of our fabric,” says the learned Dr. Hunter,* “ the more reason
 “ we have to believe, that if our senses were
 “ more acute, and our judgement more enlarged, we should be able to trace many springs of
 “ life, which are now hidden from us; by
 “ the same sagacity, we should discover the
 “ true causes, and nature of diseases; and
 “ thereby be enabled to restore the health of
 “ many, who are now, from our more confined
 “ knowledge, said to labour under incurable
 “ disorders. By such an intimate acquaintance with the œconomy of our bodies, we
 “ should discover even the seeds of diseases;
 “ and destroy them before they had taken root
 “ in the constitution.

“ This, indeed, is a pitch of knowledge
 “ which we must not expect to attain; but,
 “ surely, we may go some way; and, therefore, let us endeavour to go as far as we
 can.

* Vid Introd. Lect. p. 65.

“ can. And if we consider that health and
 “ disease are the opposites of each other, there
 “ can be no doubt, that the study of the natu-
 “ ral state of the body, which constitutes the
 “ one, must be the direct road to the know-
 “ ledge of the other.

“ What has been said of the usefulness of
 “ anatomy in physic, will only be called in
 “ question by the more illiterate empirics
 “ among physicians. They only discourage
 “ others from the pursuit of knowledge which
 “ they have not themselves, and which, there-
 “ fore they cannot know the value of; and
 “ tell us, that a little of anatomy is enough
 “ for a physician.”

That dissections will prove of great utility,
 I am persuaded, need only be mentioned to
 gain it credit with most people of the medical
 profession; and even now with a great part
 of the world in general. When the surgeon,
 therefore, has a patient whose disease he is
 doubtful where to rank in nosology, or how
 to treat in practice, from its uncommon and
 anomalous nature, according to his experi-
 ence, every symptom ought to be attended to,
 and as carefully noted down: his observations
 should be made once, twice, or oftener in the

day, if convenience will serve; and the effects of the medicines he prescribes accurately remarked. If, notwithstanding all the care he uses, the patient dies, and doubts still dwell on his mind respecting the nature and cause of the complaint, he ought, as a public regimental concern, if he understands anatomy, to request leave to inspect the body: if he omits it he is certainly culpable.

We shall suppose him engaged in it: and here he should carefully take notice of every appearance deviating from the healthy state. These are to be compared with the symptoms already remarked, and from this he will be able to judge how far the symptoms are explained, or what remains still to be accounted for. The use of this is obvious; should some future period place a patient in his sick list with similar symptoms, he will now be better able to form a just notion of the disease. If he has every reason to suppose it is beyond the power of medicine, this even will prove a satisfaction not only to himself, but to the commanding officer, whose duty it is to enquire after the men's health, and the medical attendance given them. It will likewise relieve the surgeon from any future reflections.—For example:

ample: a patient comes into his hospital, whose chief symptoms are as follows:—an irregular intermitting pulse; great palpitation of the heart on the slightest motion; dispnoea; the apex of the heart changed from its natural situation, and turned considerably more towards the sternum.—Another patient comes, where the beat of the heart itself is felt lower down towards the false ribs; he is also affected with palpitation, and great difficulty of breathing.—Both die.—On dissection, he finds in the former case, the pericardium greatly enlarged, and containing a considerable quantity of serum; and which, by its long and constant pressure on the left lobe of the lungs, prevented the blood from flowing into it, and the lobe itself from receiving its due nourishment, whereby it is almost totally consumed, and the heart pressed into its place:—in the latter, a preternatural dilatation of the heart itself; and, joined to this, an ossification of its valves.* On this discovery, he shall be perfectly satisfied, his care and medical knowledge were altogether unequal to the task of restoring the healthful functions of these
 N 3 organs,

* These are two real cases; but neither of them happened in the army.

organs, and saving his patient's life. Hence no future reflections can be thrown out, with the least shadow of justice, against him in the medical treatment of these cases ; for, ocular demonstration proved them to be incurable.

Another example ;—he is again called to a patient. After proper enquiry, and mature deliberation, he is furnished with the following history, and is able to recount the symptoms here mentioned.—First, the patient has been long valetudinary—dates the cause to a severe fever, almost so far back as twenty years—which changed the constitution from robust to weak—the countenance from a florid to a pale and cahectic appearance ;—Became thin—delicate—and subject to hysteria (the patient was a female) and this weakness and delicacy perhaps heightened by her becoming the mother of several children.—Complaints continued slowly advancing, till the latter end of 1782.—Medical advice was then had recourse to.—The symptoms that *then* presented themselves were these ;—an anxiety, and an uneasy sensation on inspiration.—Sense of a stricture about the breast ; it gave the idea of a contraction of the parts.—Was attended with much pain ; nay, so violent, on taking
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the exercise even of gentle walking, as to oblige her to stop short, to recover her departing breath, and keep herself from fainting.—On these occasions, pulse low, yet never intermitted.—Great depression of spirits. Every night now, on going to bed, these painful spasms recurred with violence—would continue from one to two hours, or longer—then yielded for some time—but a night seldom passed without one or two of these painful paroxysms.—They were at the same time accompanied with a sense of weariness, and pains in the limbs.—Observe, however,—these painful paroxysms of difficult respiration gave her sometimes a respite for a month at a time.—In these intervals hysteric affections often appeared.—It must not be omitted, that, during the fits, there was great palpitation of the heart.—The intervals of ease which we have said were sometimes a month, became gradually shorter; and, as might be expected, she grew still more debilitated.—Was now very easily thrown into perspiration.—The admission of the gentlest stream of cold air gave great uneasiness—so much, that on going into the open air, she was obliged to guard against it

with the strictest care, by warm flannel put round the breast, and up to the neck.—Appetite now failed.—Complaints still encreased—recurred with aggravated—with reiterated severity—till at length, in the beginning of 1786, she was released by death from her misery.—On inspecting the contents of the thorax, from whence the chief of these painful symptoms seemed to originate, not only in the pericardium, but in both cavities of the breast, a considerable effusion of serum was found.—Here was an explanation of part of the symptoms.—The inspection was further prosecuted.—The heart itself was carefully examined—and, lo! the valves placed at the entrance of the right ventricle were found strongly ossified, and so united, that the passage for the blood to flow into the vessel was nearly shut up; the aperture left was little more than could admit a silver probe of the common size!—Here was enough to account for death; and to prove, likewise, the disease incurable.—Observe—in this case, no intermission of pulse was discernable, till towards the last period of the complaint; and it was no great while before death, when the symptom
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of painful spasm was attended with considerable intervals. Let the physiologist, however, explain it.—The case is a proof of the utility of dissections, in as far as it is clearly proved, that the event was irremediable—it satisfied relations and friends—it prevented reflections on the attending practitioners.*

Such cases of dissections should be carefully transcribed into a book kept for that purpose; and, joined to them, any remarks occurring on the occasion. These, no doubt, would be found extremely useful afterwards. Nor am I sure, whether they might not prove as serviceable to the regiment in time to come, to have a copy of them taken by the regimental clerk, for the instruction of succeeding surgeons, as any other register in their possession. Could they save one life only in the space of twenty years, they would compensate sufficiently for the labour of registering; while the instruction resulting from the case to the surgeon himself would be a farther compensation, and a sufficient motive for his pursuing dissections in future.

Another

* This is also a true case, in the author's practice, but not in the army.

Another lesson, equally instructive, will result from dissections, *i. e.* when some case presents, itself the nature of which he is acquainted with, but cannot succeed in removing the disease. Suppose an ileus: this, he knows, consists in a stricture of the intestines, which prevents a deposition of the fæces. He tries every method to remove it, which reason or experience suggests: oily and turpentine clysters; tobacco smoke; venesection; blisters laid on the abdomen; the dashing of cold water over the lower extremities,* with every other means in his power; all are in vain. He reads, as he turns over authors on the subject, in order to collect their different practices in similar cases, of a proposal to force the stricture by weight. He has recourse to it: several ounces of crude mercury are immediately swallowed by the patient, and repeated at a short interval. It will not succeed: the stricture remains fixed. A mortification quickly ensues, and death is the consequence. The body is opened to discover the stricture; and, lo! the boasted mercury, instead of descending in an uniform mass to the seat of the disease,

* Vid. case in the Med. Ess. cured by this means.

disease, is found divided into millions of globules, of great minuteness, by the mucus of the stomach and intestines over which it passed, there remaining, and adhering to their coats. This proves instructive to him ; for though he could not remove the disease, yet, when a similar case presents itself, he can say, with great confidence, that this boasted and theoretical remedy is as useless as it is imaginary, while the dissection stands on record to corroborate his assertion.*

But dissections are useful in other respects. In the manual operations of surgery it is from them we learn, what we may do with safety, and how we may avoid difficulties, and escape dangers.—“ It is dissections alone that can teach us where we may cut the living body “ with

* Vid. De Haen Rat. Med. where this is proposed and recommended. This is likewise a real case. When I was a student at Edinburgh, this practice was put to the test in the Clinical ward of the Royal Infirmary by Professor Home. The Patient died ; and the dissection, at which I assisted, proved what is now related: The body was opened by my learned fellow student, the late Dr. Cleghorn, jun. (professor of anatomy afterwards in the university of Dublin) then clinical clerk ; whose abilities will long remain in the memory of his acquaintances, and his death be long regretted by all that knew him, as well as all lovers of medical science.

"with freedom and dispatch; and where
 "we may venture with great circumspection
 "and delicacy; and where we must not, on
 "any account, attempt it. This informs the
 "hand, gives dexterity to the hand, and fami-
 "narizes the hand with a sort of necessary
 "humanity, the use of cutting instruments
 "upon our fellow-creatures." *

There may be many cases given as exam-
 ples of the utility of dissections: among
 others, sudden and unexpected death; or
 where the patient complained, but his com-
 plaints so vague, that the physician could dis-
 cover few or no symptoms by which he
 could guide his practice. I saw a case of this
 kind, in 1781, under the care of one of the
 ablest physicians of the age: the patient was
 a boy about twelve years old. Leave was
 not obtained to inspect the body; but, there
 is reason to believe, dissection would have
 thrown some light on the subject. Perhaps
 some disease might have been discovered in
 the brain. The boy complained of some
 Head-ach; yet had no feverish symptoms; nor
 did any thing appear to indicate hydrocephalus
 internus (and yet I have some reason to
 think water was lodged in the head) except that

he

* Hunter's Introduction, Lect. p. 68.

he said his sight and hearing were both somewhat occasionally (not constantly) impaired.

But I find, from a case I had under my care at Ipswich in Suffolk, in March 1784, that the ventricles of the brain may be loaded with water, yet few of those symptoms appear which authors have laid down as almost invariable in such cases: nor yet the disease run through those regular stages they have related as its common course. The patient I mean here was a young man, twenty-three years of age. When he came to ask my advice, his chief complaint was a violent head-ach, returning irregularly; would sometimes continue for hours; at other times, cease in a few minutes; he had a tingling noise in his ears; and I found he had convulsive fits sometimes: these, likewise, his master said, attacked him irregularly—sometimes two or three times a day; sometimes not for so many weeks. He had been affected in this manner several years. He was of a very florid complexion; his skin thin and smooth; his hair fair; and he was also of a soft lax temperament, evidently sanguineous. I was also informed, his father had died of a complaint somewhat similar, as it was described

me. I must not omit, that on taking nourishment of any kind, he informed me, his head-ach increased, and if the food was hot, still more; became violent; and he was now most apt to be seized with a fit. I observed, also, that he leaned his head to one side, and seemed to have a rigidity of the neck. His master confirmed this to me afterwards, and added, that he would hold it a few minutes on one side, then turn it on the other, as if to rest it. From the account I had received of the father's death, I looked on the complaint as hereditary, and owing to a mal-conformation of the parts, perhaps the bones; but, as his countenance appeared so florid, and his whole habit full of blood, I directed the surgeon to open the temporal artery, and take away ten ounces of blood; then to shave the head, and apply a blister. As he was of a costive habit, and, he said, always worse when he went two or three days without a stool, which was often the case, I ordered him some laxative pills. It is to be observed, he had no fever, nor ever had been affected with one since the head-ach began. The surgeon endeavoured to open the artery as directed, but could not succeed; he then opened a vein in

the arm, with considerable difficulty, on account of the smallness of the vessels, and depth they were sunk ; he took, however, the quantity mentioned, and got his head shaved ; but, an uncle, to whose house he now repaired (for he was obliged to leave his service) would not permit the blister to be applied : a week, or more, intervened, and then it was laid on his back. It is remarkable of the blood, that it concreted, speedily into a firm, solid mass, with the separation of little or no serum, and with a thick, tough pellicle of coagulate lymph on the surface. This seemed to indicate more evacuations. His pills were given, and they had the effect. He continued better for some time ; but, as the uncle refused to comply with my advice, of applying the blister, I did not afterwards prescribe for him. Mr. Stebbin, of Ipswich, the surgeon that attended, visited him, however, once or twice afterwards. He grew better ; had no fits, and but little head-ach for a fortnight ; on which, concluding himself well, he returned to Ipswich to resume his servitude. He called on me the same day, and thanked me for my care. There was no reason, from the trifle that had been done, to suppose him cured. On
looking

in his face, I perceived his eyes stare, and the pupils dilated rather more than in health; yet he did not complain of any defect in his vision. He had the same stiff appearance in his neck. He left me, and, in an hour or two afterwards had a fit, which made him again return to the country that evening. In three days after, he was dead.

The morning he died, he rose out of bed without help, which he had not done for a day or two, sat down in an armed chair, talked a little, as usual, with one of the family, and said he was better; then shut his eyes, as if falling into sleep, leaning his head against the back of the chair. He continued so for half an hour, and they concluded he was asleep, and would not disturb him; but, on going near, they found him dead.—Leave was given to open the head. I begged the surgeon to inspect it, but, being at that time confined to bed with a complaint in my leg, I could not attend him. On returning, he gave me the following relation:—that in place of vessels being burst, and an extravasation of blood on the brain, as we both suspected, he found the state of things very different. The cranium was extremely thin, more so than he had
seen

seen it in any subject; and soft in all its parts; so that the saw ran through it with the greatest ease; and it separated from the brain without any difficulty whatever. While he was cutting the occipital bone, pretty low down towards the neck, the saw going through, and penetrating the dura mater, above the cerebellum, but nothing more, a stream of water issued out. Besides what was thus lost, he saved about six ounces. The young's man's master, who went with the surgeon, and another man, being present, both declared there was in the whole full ten ounces. The whole substance of the brain was soft and flabby, rather whiter than usual, and no marks whatever, or red points, to be seen in the inside of the skull, which commonly happens in dissections, from the rupture of the vessels communicating from the external with the internal parts of the head. He examined the rest of the brain, but found no schirrosity either in the pituitary gland or other parts. From the sight being scarcely at all injured, it would seem that the water had been more in the third and fourth, than in the lateral ventricles; for, had these been full, the thalamus nervorum opticorum must have been

been compressed, and vision impeded. Those who contend, that no communication is to be found between the third and fourth ventricle, will say, the water was all contained in the fourth; and would use this as a case in point to prove it. But it would be too rash to conclude this here, from the spongy state of the brain, which did not allow of an accurate examination of the other ventricles; and from the specific gravity of the fluid falling down to this, as the most depending part, and pushing its way there with more ease from the diseased state of the cerebellum.

It has been objected to me, in speaking in favour of regimental dissections, that it would deter men from entering into the service; for as it would be rumoured abroad, that men were always opened when they died in the army, as the vulgar in general express an abhorrence of the practice, it must follow, that none would chuse to enlist into a regiment where this was customary. This, however, is an ill-grounded objection; nor do I think it can carry any weight with it. Is it not meritorious to endeavour to search out the causes of diseases? and must not this hold as well in the army as out of it? No
5 regiment,

regiment, I am confident, will bear a worse report on this account. Many examples might be quoted, where they have been prosecuted by the surgeon on every proper opportunity, and no danger of this kind followed. But, I can pronounce the objection groundless from my own experience. I have been present at a dissection made in a regiment which, so far from being done in a clandestine manner, through any apprehension of this nature, it was done openly, and in the presence of several soldiers, who were called as attendants and assistants; and with the knowledge of the whole hospital besides; and, before it was finished, might be known to upwards of fourteen hundred soldiers then in the town. Nay, I have been informed, that, in some regiments, to the honour of the commanding officer and corps, when a private dies, the surgeon receives orders to inspect the body. Incapacity or idleness may invent apologies for neglecting anatomical researches; but, we would beg leave to suggest some hesitation in fixing such a stigma, as I would call it, on the army in general. The works of several eminent men who have practised in the army, and improved their profession there, remain

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lasting

lasting proofs of the futility of such objections.

Besides, this is not an age for such ignorance and superstition. We find few now, of any rank, that are not fully convinced of the utility of opening bodies for the benefit of survivors; particularly when the disease has been such as could not be ascertained; or when it is to prove by demonstration, for the satisfaction of friends, diseases that lie beyond the power of aid. Were we to multiply authorities to support us in our opinion of the great importance of dissections, many might be quoted. "The opening of morbid bodies "after death," says Sir George Baker, "if "it not always assist a physician," (the regimental surgeon should have the knowledge of one) "in his future practice, has its singular use, in as much as it frequently "exhibits the genuine effects of a fatal "disease*."

I have attended patients (not soldiers) particularly young subjects, under hydrocephalus internus; and, when they died, the parents have *insisted* on my opening them; and, in one case, the father stood by me all the time.

I will

* Vid. Med. Transf. Vol. II. p. 468.

I will venture to say, that whenever I wish to open a body, either in the army or out of it, I shall be able to accomplish my designs ; at least, this far I may affirm, that I never yet met insuperable difficulties here ; neither have we any reason to suppose, that others will be less successful, if they make the attempt.

“ The history of anatomy,” says Dr. Hunter, “ should stimulate *us all* to cultivate it “ with diligence, when we see that anatomists, “ in all ages, have made useful discoveries ; “ and, in consequence thereof, have enjoyed “ the advantages of reputation in their profession ; and when we see, that the subject “ is still so far from being exhausted, that it “ is to this day, and must be to the end of “ time, new, entertaining, useful, and inexhaustible *.”

When friends and relations observe, that the request is not made from wanton and idle curiosity, but for the sake of information ; when, besides, they observe all delicacy used, as far as the nature of such operations can admit, the reluctance they at first might shew to the proposal, now ceases. Use will even

O 3

reconcile

* Vid. Introd. Lect. p. 62.

reconcile people more to it; and, from its frequency, it will become familiar.

“ Were I to guess,” says the author above quoted, “ at the most probable future improvements in physic, I should say, that they would arise from a more general and more accurate examination of diseases after death. And were I to place a man of proper talents, in the most direct road for becoming *truly great* in his profession, I would chuse a good practical anatomist, and put him into a large hospital to attend the *sick*, and *dissect* the *dead*.”

It will be farther objected, and we may, perhaps, be asked, how can young men prosecute them with success, who, according to our own supposition, never had proper opportunities of instruction? True; they cannot at first; but, if instruction be their wish, by the help of books on the subject, and the inspection of bodies, they may, in a great measure, overcome these obstacles. Diligence and perseverance have often supplied the want of better opportunities of information. I knew a gentleman (now dead) who, by such application in opening bodies, first inspecting dogs, sheep, &c. arrived to a tolerable proficiency

proficiency in anatomical knowledge, before he ever entered the walls of an university, or ever saw a dissection but what he had made himself; and, at this time, I am confident, he knew more of the human body, could describe more of its parts, and their situation, than many who had spent several years there professedly at the study.

“ If we look among the physicians of the “ best character,” says the learned author we have so often quoted on this part of our subject, “ and observe those who have the *art* “ itself, rather than the *craft* of the profession “ at heart, we shall find them constantly “ taking pains to procure leave to examine the “ bodies of their patients after death. Desir- “ ous that it may be done by experienced “ anatomists (a circumstance often of the “ highest importance) and unhappy when “ they cannot procure this opportunity of im- “ proving themselves and their art*.”

On the whole, no doubt can remain but the regimental surgeon, who wishes to improve himself in this branch, will find opportunities enough in the army: and should it not be customary in the regiment before, he

will not, I think, find it impracticable, by proper representation, to prevail on his commanding officer to allow it; and what he wishes to have done, it is well known, must not in the regiment be refused. Some murmurs may at first be heard, but it will depend on the surgeon's own conduct and behaviour to quell them. They will cease by degrees, as the novelty of the custom abates, and the sooner, if he be careful to point out the use and real intention of his researches.

I cannot do better than finish this subject with the sentiments of the celebrated anatomist * above alluded to, in answer to another opinion that has been given against the prosecution of dissections: the opinion, that it is not worth the trouble; and even unnecessary, to drudge any length in it.—“ When we
 “ hear,” says he, “ of any men of the pro-
 “ fession talking of all the knowledge of ana-
 “ tomy that is necessary for a physician, and
 “ of as much as a surgeon needs to know, we
 “ cannot but lament the singular hard fortune
 “ of his patients; first, in being sick or dis-
 “ eased, and then in falling under the care of
 “ so ignorant a counsellor.—Who is the man

“ of

“ of practice and integrity that can lay his
 “ hand upon his heart, and say, that he has
 “ not, in some case or other, had occasion for
 “ all his anatomical knowledge; and who has
 “ not wished, at times, that he had been
 “ possessed of more?—Who, then, are the
 “ men in the profession that would persuade
 “ students, that a little of anatomy is enough
 “ for a physician, and a little more too much
 “ for a surgeon? God help them! they have
 “ it not themselves, and are afraid that others
 “ should get it. The more clear and perfect
 “ our knowledge of every part of the body is,
 “ both in its sound and morbid state, the bet-
 “ ter we shall understand the nature, and
 “ strength, and tendency of its diseases. Thence
 “ we shall more readily and certainly learn to
 “ discover a disease in its beginning; to ob-
 “ struct its progress; to put it under difficul-
 “ ties; to prevent its gaining strength by the
 “ acquisition of auxiliaries; to cut off its sup-
 “ plies; and, finally, to drive it out.”

CHAPTER VIII.

THE NECESSITY OF GOOD INSTRUMENTS—OF FIXABLE
AIR—AND OF ELECTRICITY IN REGIMENTAL PRACTICE.

INSTRUMENTS proper for operations should always be in readiness. No regimental surgeon ought to be without them; for although operations seldom occur in a regiment, except on actual service, and after a battle, yet casualties may, and do sometimes happen. On such occasions, therefore, to be unprovided is unpardonable.

Compleat pocket cases, and sets of amputating instruments of the most approved form, with needles, thread, and sponge, should be procured. As a surgeon in the operative part of his profession improves greatly by practice, since dexterity of hand is as necessary as judgement, he ought frequently to operate. This will be a farther reason for his prosecuting dissections on every convenient opportunity.

We have already taken notice, that such opportunities will often present themselves in his line of life, where, undisturbed, he may improve himself

himself in operations, and in a knowledge of the structure of the human body. He that labours most in this branch, only knows how much still remains to be attained. What then shall we say of the surgeon, who never labours at all? Perhaps the most experienced in operative surgery never performs an operation, that, when it is over, he does not discover something omitted; and who has not reason to say to himself, "If this was to do again, I would perform it differently, by which, as I now perceive, I should avoid not only inconveniences to the patient, but to myself." I have heard experienced surgeons make similar declarations.

Cool, steady, deliberate intrepidity, where neither the heart shall fail, nor the hand shake, is of all other things the most requisite in this art. But this can only be acquired by frequent repetitions of operating. It is this that gives confidence from our knowledge, steadiness from use, and prevents rashness, which is the effect of ignorance. Although the operation on the dead and living subject be different, yet it is on the dead we can best initiate ourselves in the practice. Here we first acquire a dexterity and readiness of hand;
our

our knife becomes easy and familiar to us, and awkwardness is overcome by frequent repetition. When we come to execute the same on the living subject, it is true there are casualties and difficulties we must expect, and be prepared for; such as large hemorrhages, and other things, which in the dead subject do not disturb us. If we are altogether novices in our business, these may considerably disconcert us; and perhaps create such an alarm as to prevent our finishing the operation, from the trepidation we are thrown into. Nor is this a new case: surgeons have been known to begin operations, and for want of sufficient courage, which a greater frequency of operating would have given, have yielded the knife to another; yet who were not perhaps less informed in what was requisite to be done, than the person who finished them. Even after we are well accustomed to the use of the knife, accidents may happen which shall confuse us. If, for example, from too great an eagerness to extract the stone in lithotomy, the young operator should chance to take hold of it so hard as to break it in pieces, it might not only throw him into confusion, but really occasion mischief to the patient, by the admission

mission of air into the wound during the time spent in scooping out the different fragments, and from the encreased irritation given by the frequent introduction of an instrument for this purpose. I knew a case not many years since, where a surgeon from this cause was very greatly disconcerted. He was as well acquainted with the different steps of the operation, as any of his brethren present, yet, in the midst of his performance, his heart failed, his hand shook, and he was consequently compelled to relinquish the knife to another, who, from being more in the habit of operating, finished it without hesitation, or the least trepidation.

While I mention the circumstance of too forcibly grasping the forceps, I beg leave to inform the reader of an improvement, as it appears to me, of no small moment in this instrument, lately suggested by Mr. Stebbing, a surgeon, in Ipswich. By this alteration, accidents of the above nature, must, in a great measure, if not altogether, be prevented. Through the means of this improvement, the operator can not only *instantaneously* fasten the forceps, so as neither to slip, nor slacken their hold, while he rests his arms; but he may, *ad libitum*,

turn, use less or more pressure on the calculus, and suffer himself to let the instrument go, on turning a small screw.

He may now introduce his finger to examine the situation of the calculus, and turn it, should it be grasped by the long diameter, and thus render it not only more easy of extraction, but avoid much pain, and subsequent inflammation.

The improvement chiefly consists in a small piece of soft metal sliding through the extremity of the handles, to one of which it is soldered; it is made to slide easily, as the forceps are shut or opened; and it is rendered fixed in a moment, at any point the operator pleases, keeping the blades less or more open, by only turning gently the small screw, the point of which lays hold of the slide, and it becomes immoveable.

For want of a contrivance of this sort, I have more than once seen great inconveniences. The lithotomist has been obliged to tie the handles of the instrument together to preserve his hold, till he introduced his finger to examine, or till he rested himself. The above makes it both safe and easy either to do this, or to dilate, if necessary, the wound, or otherwise

otherwise examine the progress of the operation, and the nature of the obstacles to the safe extraction of the calculus, should there be any in the way.—But to return.—If in an amputation the vessels should be found difficult to be secured from a disease in their coats, it might in like manner disturb a surgeon unaccustomed to operate, and perhaps confuse him so much, as to prevent the proper degree of reflection now necessary. The coats of arteries are also sometimes so indurated, and even brittle through disease, that when the limb is taken off, much difficulty attends making the ligatures on them properly secure. I have been present at cases where one of the most experienced surgeons in London found no small obstacles in this part of the operation. After taking off the limb, the arteries were so brittle, that no sooner was the ligature drawn tight, but the vessel broke through before its sides could be brought so close together as to prevent the hemorrhage; and this took place repeatedly, even to the third or fourth time. We may easily conceive into what terror a young man, little accustomed to operations, would have been thrown in these cases, Arteries may be putrid,

trid, and the ligature from thence give way, and cause much confusion. We have a case of this sort in the second volume of the Med. Comment. wherein this happened after an operation on the femoral artery, performed by Mr. Leslie, of Cork. About an hour after the artery was taken up, the ligature cut through, and produced some inconvenience.

A surgeon knows the value of good instruments, and will therefore take care to be provided with the best, if he wishes for success in operating. Both himself and the patient will reap the advantage of them. This is not the case, however, with all regimental practitioners. It has been found necessary to spur several on to their duty in this respect. In cases where negligence is observed in keeping good instruments, it becomes the commanding officer's business to oblige them to be well provided. And I am well informed of a commanding officer, who, conscious of the surgeon's neglect here, and which is too frequent in the army, has himself sent an order to an instrument maker, and stopped the price out of his subsistence.

Instances

Instances have occurred, where a surgeon, even in England, (though almost every town where he quarters would afford them) has not been provided with any beyond a lancet, or two; and these also of a bad quality*. With regard to lancets, nothing is so dangerous as using bad ones. The force they require in piercing the integuments, pushes them generally too far into the vein, by which the phlebotomist is in danger of going through it on the other side; of pricking an artery if it be in the way; or, what is not less dangerous, of wounding a nerve.

Dr. Monro mentions to his pupils annually some cases of this kind, one of which, I think, proved fatal; and the others were attended with no small danger. One, if I mistake not, was a lady, who only slightly pricked her finger with a needle. A second was a gen-

P

tleman,

* This is properly ridiculed in a late publication, where the foibles of the officers of the British army, as well as the surgeons, are exposed. Among other things, the surgeon is here ironically admonished to *keep two lancets*; a *sharp* one for officers, and a *blunt* one for the privates: "for," adds the author, "this will be making a proper distinction between them."—There is just foundation for the sarcasm. Vid. *Advice to British Officers*, published in 1783.

tleman, who, sitting at table where a drinking glass happened to be broke, and by sweeping off the pieces with his hand, a small bit of the broken glass pierced it. Though this little scratch soon healed, it was several months before he was free from the danger it created. A gentleman in Middlesex * gives us three instances of it from bleeding; one of which had very nearly terminated in a locked jaw, and in death. Besides, the cavity or internal surface of the vein itself might enflame, and produce very alarming symptoms. If these sometimes happen in the hands of skilful surgeons, with instruments of the best sort, are we not to suppose they will happen more frequently from bleeding with such blunt lancets as we hinted at above?

I might give myself as an example of the dangerous effects of partial wounds in nerves. —In the autumn of 1782, while I was employed in examining the structure and the joints of a horse's leg, partly for my amusement, and partly to demonstrate the construction to some officers fond of horses, and who thought improvements might be made in shoeing

* Mr. Sherwen, surgeon, Enfield. Vid. Med. Comment. vol. 1. p. 210.

shoeing them ; while I was engaged with a saw in taking off the hoof, to bring into view the different parts of the coffin joint, and point out the thinness of the horny part, too much of which smiths injudiciously scoop away, I ran the teeth of it obliquely over the second joint of my thumb ; but so slight was the injury, that the cuticle was only raised, and torn a little ; yet the pain and inflammation which succeeded in the part that evening, entirely deprived me of rest. This continued unremittedly for upwards of a week, during which I slept little. Every thing that seemed to bid fair to allay the inflammation and irritation, was applied. It spread up to my wrist ; the part became numbed ; I lost both the use of motion and feeling in it ; while the joint of the phalanx above that which was wounded became so painful on the slightest motion, that it created me great uneasiness. It continued ill for upwards of four months, and it was much longer before I could grasp any substance with that thumb, so small as a pin. All this could not proceed from a wound so slight as scarcely to bring a drop of blood, had not some cutaneous nerve been partially wounded.

But to return. If the lancet be good, we have much less danger to apprehend. Almost the gentlest force makes it penetrate the skin, while it slips with ease into the vein, and with little or no pain to the patient, who always complains severely from a bad lancet. "All the other operations in surgery," says the ingenious Mr. Bell, speaking on the subject of V. Section, "I have frequently seen well performed; but I can with freedom say, that I have seldom seen blood letting with the lancet done very correctly. When properly performed, it is really a neat operation; but when not done with much exactness, it is the reverse."* The same author goes on to show, that bleeding in other parts of the body may be attended with less danger, particularly in wounding an artery, than the arm, at the common place near the cubit, where blood is generally let. He mentions the feet, or the arm lower down than the cubit; or the jugular vein. A full stream of blood, he takes notice, may be obtained from the feet near the ancles, as well as from the arm. His advice is worth attending to. It certainly

* Bell's Surg. p. 64. vol. 1.

certainly would render aneurisms less frequent.

I hope, after what I have said respecting the constitutions of soldiers, no argument need be offered to obviate the common apology, that "any thing may do for a soldier." The supposition that they can bear surgical operations better than others, from a hardness and callosity of feeling, is a false one; and to take it for granted without proof, and to act accordingly, is improper. I have on many occasions seen an apparently strong and robust man tremble at the sight of a lancet, and faint away in the course of the operation, who, I dare say, would have undauntedly charged the enemy with fixed bayonet, or mounted a breach without fear. There is something abhorrent in our nature at the deliberately wounding our flesh. Some feel, we allow, more acutely and sensibly than others; but if I have found one who could hold the cup to receive the blood without being moved, or starting in the least at the prick of the lancet, I have found six of as delicate a mobility. And why should it not be so? What could give rise to the contrary supposition so injurious, as it occasionally proves to the soldier in his medical

treatment? Have not many of them been as tenderly bred up, and previously accustomed to as decent treatment as the rank of mechanics and labourers allow? In their own houses, we all know mechanics meet with no such hard treatment in their sickness from the faculty. Can a few months, perhaps a few days, so change their natures? We know the contrary. This can never take place, but by length of time and habit. Many of the soldiery suffer most in their health when they are least able to bear it, *i. e.* soon after their entrance into the service, before they become inured to the musquet, or the duties it requires. We do not always find the lowest orders of mankind in the ranks. If we enquire, we shall often discover youths who have been tenderly bred up; and men long accustomed to better days. The son, perhaps, of some worthy clergyman, that the giddiness of youth hurried thoughtless into this way of life. The once flourishing farmer; or the reputable tradesman. I knew instances of all these; of many whom misfortunes drove into the service. Some indeed entered into it through folly. But we have spoken of this already.

While I am on the subject of V. Section, let me mention a caution, which I think necessary

cessary to lay before the young regimental surgeon. It is this : never to allow a soldier on being bled, to use his firelock till at least after two days, that the vein may have time to close, and the cicatrix begin to form. As a soldier is never to be bled merely from his own desire, but when the surgeon is convinced there is reason for it, this delay can be of no detriment to the discipline ; for it is better his name should remain two days in the sick list than twenty.

In the autumn of 1781, I bled two privates for some trifling complaint, which did not require them to be continued in the hospital list. They were dismissed accordingly, and the serjeant, as usual, took them out to duty. The consequence was, that about a week after they both returned to the hospital with their arms not only enflamed, as if a nerve had been pricked, but with a pretty large tumor on each, somewhat resembling an aneurism. It was hard, and did not, like the aneurism, yield or disappear on pressure. I mean the encysted aneurism ; the diffused aneurism does not yield, or disappear on pressure. I was, however, somewhat alarmed, lest one or other of these accidents had taken place, of the bad consequences of which I was

well aware ; but on examining the vein that had been opened, which in both was the median basilic, near which no artery lies in the most common structure of the arms, and distribution of the blood vessels, I was satisfied that my fears were groundless ; nor did I think a nerve had been pricked, because the inflammation had not spread far up the arm, nor was any numbness in it, or other symptoms most generally accompanying that accident.

I dilated the integuments above the orifice in the vein ; applied the common digestive, with bread and milk poultice, over all ; and as the inflammation stretched round the orifice a little way, I ordered warm stupes, in which wormwood and camomile flowers were boiled, to be applied twice a day, as hot as convenient, an hour at a time. These were continued more than a week. By this method they were both cured ; but not till after the formation and discharge of a considerable quantity of pus. It was, however, six weeks before they could do their duty. My colleague happened that morning to bleed another soldier, who in like manner went to *drill* ; and the same accident happened to him. The regiment was young,
and

and the drill duty severe at this season, to prepare for a review.

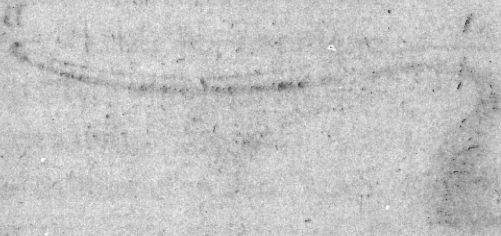
Had any error happened either on his or my part, I should have considered it incumbent on me to mention it here, as a caution to others. The accident, however, proceeded from the violent exertions of the arm in exercising with the musket. All this would have been avoided by giving charge to the serjeant not to take them to drill, or other duty that required the use of arms, till the orifice had closed a little. Experience taught me my mistake, in allowing them to go from the hospital that day; and it is mentioned now, that others may not fall into the same. Mr. Bell's directions, not to bleed in the arm if other parts, as already mentioned, can be had recourse to, will apply no where with more propriety than in the army. Had a vein been opened in the foot, or somewhere about the neck, the violence of exercise, which falls most on a soldier's arms, would not have affected them near so much, and these troublesome tumors would have been avoided. And it may be added here, that the less danger will follow if the lancets be sharp. The author above quoted assures us, he never uses the same lancet twice, without sending it to his cutler.—

cutler.—The form of the lancet, the position of the arm, (if we still prefer the arm) after the vein is opened, the manner of applying the ligature, are all material considerations, though too little attended to.*

Among the surgeon's instruments, I must place an Inhaler, to be used in cases of Cynanche tonsillaris, or inflammation of the throat. From the nature of a soldier's life, it is reasonable to expect this will often happen. I have found it a very common disease. Mudge has given us an useful machine for this purpose, † But for regimental practice, it is not only too expensive, but likewise too liable to need repairs, which every mechanic is not capable of making. As a convenient substitute, I have used a tube made of tin, for some years, which I find answers extremely well; and it is not only cheap, but strong, and can be

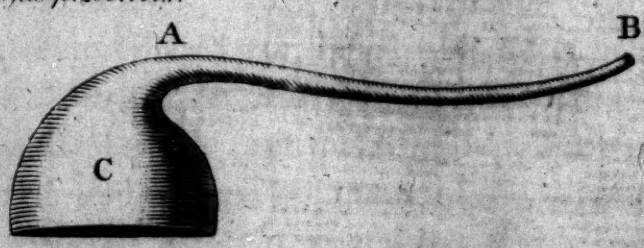
* Vid. Bell's Surg. vol. I.

† The merit of the invention of this instrument has been generally given to this gentleman, but improperly.—The ingenious Mr. Arden, Lecturer in Experimental Philosophy, is the inventor. It was with him Mudge first saw it, and, as he declares, upwards of twenty years ago. Mr. A. so long ago, had applied it with success in several cases. There is a clergyman in this place, who saw it with Mr. A. so long ago, as I have mentioned, which is many years before Mr. M.'s Essay on the Catarrh appeared. Mr. M. is said to have improved it.



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opposite p. 263. Vol. 1.

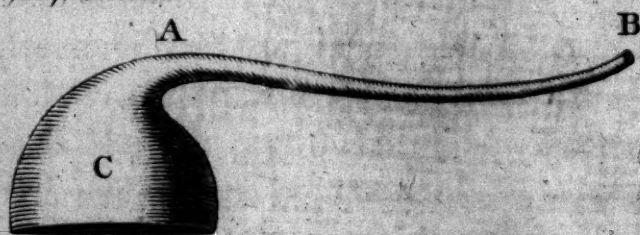


- A. The inhaling Tube.....
 - B. The part to be applied to the Mouth.....
 - C. The part to be placed over a Tea-Kettle
full of hot Water, &c.....
- The part B to be wrapp'd round with a little
Tow, to keep the Metal from scalding the
Patient's Mouth.....

be conveniently carried in the medicine chest. It is in form of a retort funnel; the mouth so wide, as to cover the mouth of a common tea-kettle; is about a yard long; and the narrow end bent a little for the conveniency of holding it in the mouth. Through this the patient inhales the steams of warm water, either alone, or impregnated with the effluvia of herbs, *i. e.* medicated as the prescriber judges best; the wide end being placed over the tea-kettle, filled with the boiling decoction. Three or four of these should be provided, as they will cost little above a shilling a-piece.

I must not omit here another instrument, as useful as any I have yet mentioned. This is a Tourniquet. It may seem strange I should mention what is so common; but though it be one of the instruments now in almost every body's hands, that pretends to surgery, it is not always found in regimental practice. I have seen repeated instances here where its use was indispensable, and where very clumsy, and indeed inadequate substitutes were had recourse to in its stead. Abroad, and in the field of battle, substitutes of any kind may be pardonable, as any endeavour, however rough or inscientific to stop an hemorrhage, may be

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opposite p. 265. Vol. 1.



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I must not omit here another instrument, as useful as any I have yet mentioned. This is a Tourniquet. It may seem strange I should mention what is so common; but though it be one of the instruments now in almost every body's hands, that pretends to surgery, it is not always found in regimental practice. I have seen repeated instances here where its use was indispensable, and where very clumsy, and indeed inadequate substitutes were had recourse to in its stead. Abroad, and in the field of battle, substitutes of any kind may be pardonable, as any endeavour, however rough or inscientific to stop an hemorrhage, may be

better than nothing, and occasionally save the patient's life; but in Britain or Ireland, to be so ill provided against accidents, will admit less of an apology; and since they are both cheap and portable, the surgeon who does not provide himself with them is blameable.

A stick twisted in a noose may answer tolerably well in amputations in hospitals, and the like, where skilful assistants are always employed to make the pressure less or more, as it is necessary. I know such are used in very respectable hospitals in London; but still this is different from the army. Besides, there are occasions when pressure of this kind is to be applied for a length of time—for many hours together. Here a noose is almost inadmissible, for more reasons than one. If a person is set over it, to hold it, as is sometimes the case, it becomes a tiresome duty, and some neglect may happen detrimental to the patient. A single twist more may make it too tight, and create uneasiness; one less may leave it too loose, and allow the hemorrhage to continue. With a tourniquet this is not the case; it may be adjusted to the greatest nicety by the screw; nor is there any fear of its giving way. In large wounds, where one or more arteries have been injured, and can-

not

not be secured by the needle, it becomes necessary to apply a pressure. Here the tourniquet is found much more convenient than those methods hinted at above.

The advocates for preferring a noose, will say, the screw or the garters may break in the time of being applied, and a fatal hemorrhage follow before the tourniquet can be mended. But we have shown that an hemorrhage is much more likely to take place in the other. If the buckle and garters of a tourniquet be well made, which it is the surgeon's business to inspect, their giving way during application will very seldom happen.

While I am mentioning this instrument, I must not omit to recommend one lately invented by Mr. Savigny of Pall-mall. It is contrived on the simplest principle; is light and easy to carry in the pocket as well as on the part to which it is applied. Its bulk and weight is not more than that of a common snuff-box. It is better suited for practice in general, as well as for the army in particular, than any other I have yet seen. I should think it highly proper that not only every officer should be provided with one, but also every serjeant in a company; and when they are to go on duty (I speak of actual service) they should

should be as indispensable a part of their accoutrements as their musquet and bayonet.

I need not hesitate a moment in saying, that lives, and those valuable ones, have been lost thro' want of a proper contrivance to stop immediately a wounded blood vessel. At the siege of Valenciennes, which will be long memorable for its well-fought obstinacy on both sides, I fear this remark, in one instance at least, was verified. A noble youth, then an officer in the allied armies besieging this town, received on duty a wound in the thigh from a piece of a broken shell, which proved mortal. He survived, however, several hours, and his death was occasioned, as far as my inquiries have been able to reach, not from the wound, simply considered, but from the effusion of blood. He lived, as I am informed, about eleven hours; and the bleeding continued, it seems, less or more, all that time. When he grew faint thro' loss of blood, spirituous liquors in large quantities, it has been affirmed, were given by those about him, to remove this symptom, which could only add to the effusion already mentioned. Medical men, no doubt, came to his assistance as soon as possible; but already a loss, as the event

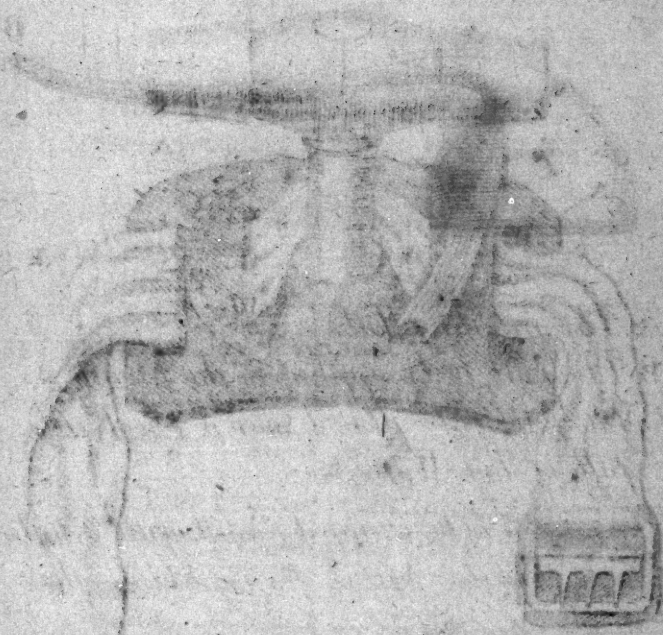
event shewed, had been sustained too great for the powers of life to overcome. Every surgeon knows that wounds in the thigh, unless near the groin, will admit of the amputation of the limb, and thus give a chance for life to be saved. It is well known that an amputation of the thigh is a common operation. I have not heard that this wound was so high up as to take away all hopes of a cure by this means, provided the blood could have been stopped, and surgeons procured soon enough to perform the operation.

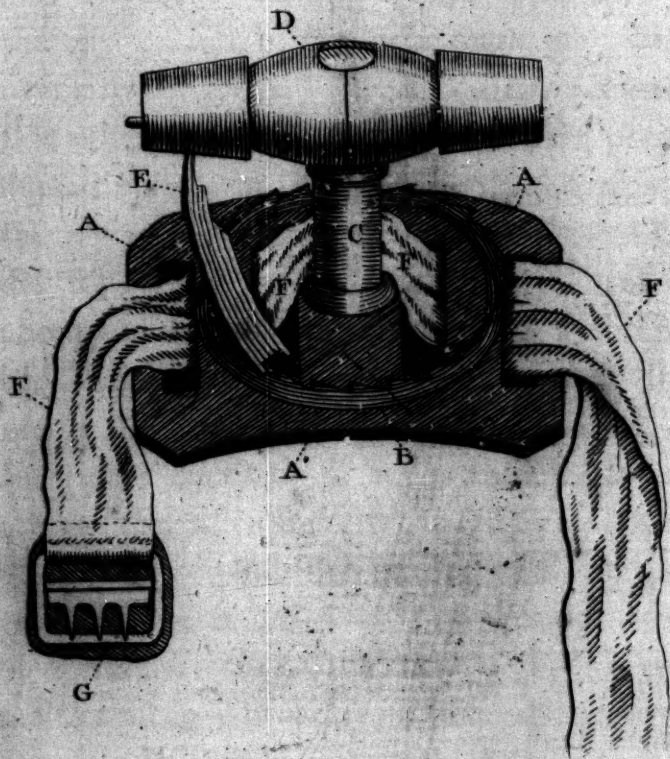
The corpse of this young officer was brought from the Continent, to be deposited in the family vault in Suffolk, where his noble relations reside. On its way, it lay in state at Ipswich a night, and part of a day, which gave me an opportunity of inquiring into the circumstances of his death from persons who said they were on the spot when the bomb fell.

The price of the instrument which I am recommending can be no objection to its use, since it is so moderate that four may be purchased for twenty shillings, a number perhaps sufficient for a company; and the mode of application is so simple and obvious, that,
when

when once shewn, it must be instantly comprehended by the meanest capacity.

It consists of a piece of thin metal, resembling the rim of a common shoe-buckle, and about the breadth of half an inch. On the convex side is placed a small rack-wheel, of a circular form. In the common centre of this wheel and the metal rim stands a perpendicular metal pin, of about an inch long; on the top of this is placed a little wooden handle, for the purpose of turning it, in form, and about the size of the handle of a common cork-screw; to this is fixed another small metal pin, reaching to the rack-wheel, and forming a check to it, but moveable, so as to slacken the instrument by the finger and thumb at pleasure; while the turning of the piece of wood by the hand gives it the proper degree of tightness. Over the little wooden handle passes a piece of broad tape, of a yard in length, running through a slit at each end of the broad rim already mentioned, to one end of which is fixed a buckle, and a small cushion or pad, to be placed on the vessel in the common way. In applying this instrument, the tape becomes twisted somewhat on the same principle of the common noose and string above-mentioned:





A. A. A. The broad metal rim resembling a shoe-buckle.

B. The circular rack-wheel placed on the convex side of the rim.

C. The moveable centre pin.

D. The cross wooden handle that turns it.

E. The moveable metal check pin which runs on the rack wheel, with one end fixed by a small moveable spring to the end of the cross wooden handle.

F. F. F. The tape fillet to be lifted up and placed over the wooden handle D. when about to be used.

G. The buckle and pad to be placed over the wounded artery in the common way.

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A. A. The broad metal rim resembling a
disc.

B. The circular rack-wheel placed on the
center of the rim.

C. The wooden center pin.

D. The four wooden bands that form the
rim.

E. The metal wheel of the rack-wheel
on the rack-wheel with one end fixed
by a band passing over the rim
of the wooden bands.

F. F. The tape sheet to be lifted up and
placed over the wooden bands F. which
about to be used.

G. The buckle and pad to be placed over the
wounded area in the common way.

tioned ; but to such of our readers as have not seen the instrument itself, and may not sufficiently comprehend this description, I shall annex a small drawing.

Bed-pans were never used in regimental practice, as far as I know, till I formed a contrivance of this sort. Observing the great inconveniences the patients were often put to in getting out of bed, when nature's calls required ; that in a state of great debility in fevers, the tossing and irritation they suffered from being lifted was hurtful, I contrived a cheap bed-pan of tin. In form it resembles very nearly the common pewter ones. It is smaller, and the tin folded down towards the inside, by which it is so rounded as to prevent inconvenience from the edges, while the patient has it applied under him. A few of these should be kept ; three or four are enough. They should be procured at the expence of the regiment, not at the surgeon's, and may be reckoned among the hospital utensils. They will only cost about 1s. 6d. each, and will be found of very great service in acute diseases.

Under the head of instruments, I must place bleeding cups, with tape bandages to bind

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up

up the arm before V. Section. Though cups might likewise be procured for a trifle, yet I believe they are seldom found in regimental practice. I mean cups containing specified measures, such as are used by surgeons out of the army. Human blood is not to be sported with. We should never at one venesection take more than is judged sufficient to answer the end; nor are we to take less. But how can this just medium be struck, when the blood is either received in a large vessel, the measure of which we are unacquainted with, or, which is the same as to effect, unable to ascertain when the proper quantity has flowed into it; or it may be, the blood flows on the ground.—This last I believe seldom happens; or when it does, it is in emergencies only.

A greater mischief will happen from taking too much, than too little blood. We can easily repeat our operation, if we find, by the appearance of the blood, and other symptoms of the patient, too little has been drawn off. But we may never be able to repair the mischief done by too large a V. S.

When large V. S. are instituted even with propriety, they never fail to induce debility. The system is always left in a state of weakness.

ness proportioned to the quantity lost. In pleurifies, where it becomes indispensably necessary to draw off large quantities to preserve life, or obviate chronic diseases that may induce certain, though slow death, we find the patient long convalescent, and health tardily established. In other fevers, where the energy of the brain is more affected, and where the nervous system chiefly suffers, if incautiously had recourse to, it renders those functions weaker, and more languid, whose powers were already too much sunk. Common observation has established the truth of this remark.

When the ingenious writer of a pretty little novel *, lately published, makes Lindorf, one of the characters of the piece, give a narrative to his friend, the Count de Walstein, of what had happened to him from their last separation, he says, " Quelques heures après mon arrivée," (à Hambourg) " je fus saisi d'une fièvre ardente, qui dura plusieurs jours; un médecin que l'hôte fit appeler, me fit saigner si abondamment, qu'une foiblesse excessive succéda à la fièvre, et retarda mon départ."—It was necessary

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* Caroline de Litchfield. Tom. 2. p. 210.

to detain this young nobleman here some time ; he is therefore thrown into an inflammatory fever. The landlord of the inn where he lay calls an ignorant practitioner to his aid, who bled him so largely, and weakened him thereby so much, that it was long before he recovered its debilitating effects to be able to pursue his journey ; as probable a means surely for the purpose, as any the writer could have devised.

Perkins, a young man about twenty-two, of the light company, was admitted on the sick list in the beginning of the spring 1781. His complaints were chiefly pains across his loins, with some, though little pyrexia ; the pains were what he complained most of ; they were looked on as rheumatic ; the weather had been cold, and the drill duty, for some time, severe, especially to recruits, and he had been but a few months in the regiment. He was bled immediately ; a pound at least was drawn off, and some febrifuge medicines administered ; he was put to bed ; but by next morning a total paralysis from the middle downwards had taken place.

Coagulable lymph appeared indeed separated on the surface of the blood ; but it was plain

plain V. S. had been profecuted too far. The deed was done : it could not now be remedied. Eight ounces might have proved serviceable, but double this—for he must have lost double—was beyond what his habit could bear with impunity. The blood flowed into a large tin vessel, used for culinary purposes; the exact measure unknown, and the quantity therefore taken away by guess. Every means was used now to restore strength to the habit, and recover the lost tone of the extremities : all in vain : he grew daily worse. The intestinal tube, with the urinary organs, partook soon of the affection ; both fæces and urine passed involuntarily ; he became emaciated ; and, to add to this, by constantly lying in one posture, except when turned by the orderlies, both the bones of the ilia and hip burst at length through the skin. In some time, notwithstanding every care, these and some other sores produced, in the neighbouring parts by the same means, mortified. He lingered two or three months from the first in this miserable condition, when death at last put an end to his sufferings.—It appeared to me, the whole train of these evils were to be attributed to the too great loss of blood ;

and that a more sparing use of the lancet, with the exhibition of such medicines as were afterwards administered, would have soon restored him to his health and his duty.

To obviate the inconveniency that may arise from such guessed work, it is very easy to procure cups of tin, or pewter. These may be as conveniently carried about with the regiment as the skillet or kettle; even much easier, as they are of a less size. We should, I think, have the following, *i. e.* one of eight ounces; one of four, and one of two. These three will answer every purpose. Suppose we intended to draw off a pound of blood, our eight and four ounce cups make just the quantity; if six ounces, our four and two amount to it; if ten, our eight and two; if twenty, (for such large bleedings may sometimes be necessary in great degrees of active inflammation, and in plethoric subjects) our eight, four and two, are fourteen. The two last may be emptied and again filled, which amount to the quantity required. If we wish to let blood to fourteen, or sixteen, we can compute it in like manner, and thus exactly fulfil the intention.

A few

A few yards of tape are equally necessary to bind up the arm before V. Section; for the soldiers seldom have garters soft enough for this purpose. They are either lifting of cloth, or other coarse strings, very inconvenient for this end, as not sufficiently compressing the artery. Their garters may answer well enough to bind the orifice after bleeding; for we should not give our bandage for this use, as it would be twenty to one if ever they were returned; and to buy on every occasion when V. S. was to be performed, would at length become expensive. As to directions in the operation itself, this is not my business to point out. I refer him to books professedly on the subject.

Among the instruments, I must mention a contrivance, which will be of great utility to the surgeon; and though, strictly speaking, it does not belong to the head of instruments, yet this seems the properest place to insert it. This is a bathing tub. The use of baths, both hot and cold, will as often be found necessary in regimental, as in other practice. A tub may be made at very little expence, which will answer every purpose of this kind; but it should be at the regiment's, not the

surgeon's expence. It may be made from a couple of old arm chests, and of the same shape, about four feet deep, and of such a length, that the tallest man of the regiment can stretch himself in it. Nor should it be any wider than just to allow a man to turn easily. To make it water tight, it must be caulked. Made in this manner, a small quantity of water will suffice. When the hot bath is wanted, the water may be heated with little inconvenience. On marches, it will serve to pack some of the baggage in, and thus answer a double purpose. When soldiers are convenient to the sea, they should bathe in it; but this is not always the case; then it may be necessary for cold bathing.

I shall pass over cupping glasses, and scarificator, as they naturally make part of a surgeon's instruments. I am sure they should be always included. Very great advantage is derived from them in cases of local pains, where topical congestion and inflammation have taken place, perhaps more than from any other means whatever.

Leeches cannot be conveniently carried on marches: but every town will supply them when

when wanted. I consider them likewise as a part of a surgeon's instruments. It is enough here only to hint their utility ; every medical practitioner is convinced of it. I have purposely omitted an enumeration of every instrument which a regimental surgeon should possess, because I have comprehended the whole under the words *proper sets*, which every instrument-maker knows, and which are generally sold together. The particulars I have pointed out are seldom attended to, though not less necessary : indeed they are almost daily called for ; and at least nine times out of ten, where we employ the amputating knife, shall we have occasion to use these.

Among his instruments, I shall place likewise bandages. The chief complaints where these are used, are for sore legs : and I would prefer such forms of them as are recommended by Rowley, Underwood, and others, who have written on the subject of ulcers of the lower extremities. A regimental surgeon should be provided with a proper number. When the frequency of this disease is considered, a dozen is the least he should have in his chest. As authors have given proper directions

tions for making them, I must refer my readers to the writings of those gentlemen. I have hitherto neither specified Catheters, male nor female, though both should be in his possession.—He will find frequent use for the male catheter among the soldiers; and since the women of the regiment will often call him in their sicknesses, he will as often stand in need of his female catheter. The small expence that the female catheter will stand him, will be amply compensated by the good name he will obtain among this part of the army. Officers are always well pleased to see their surgeon attentive to the poor sick women; as they know he is not obliged to attend them, it impresses their minds with the greater opinion of his humanity.

He should always be provided with a good accurate thermometer. This will be useful on many occasions. He may by this not only ascertain the patient's heat in fevers, but the temperature of the air, room, &c. the temperature of the water applied in the hot bath, which is absolutely necessary, and many things of this sort.

I have taken no notice of syringes; but I am of opinion they are not less useful than
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some other things enumerated under the head of instruments. Injections are much in use for the cure of gonorrhoea, and very properly, when not depended on entirely as a cure in virulent cases of it; or where there is a true venereal infection. In relaxations, &c. they answer happily. He should have at least a dozen always ready to lend out to the men, but under a penalty, if lost. Pew-ter ones are cheapest, and answer very well. He will find occasion for them in other cases, besides this, viz. in syringing the ears, in squirting medicines into, or washing out sinuses, &c.

Carbonic acid air has for some years past been much recommended in physic in febrile diseases; and it proves to be no inconsiderable medicine not only here, but in many other affections. Some convenient apparatus, better adapted to the use of the army, than those in common use, should be invented; where they would not only be cheaper, but might be transported with more facility, and less danger of breaking. It matters not whether they be of glass, provided they are of such materials as the vitriolic acid cannot corrode, or at least corrode without imparting a quality or
impreg-

impregnation to the water, injurious to health. As we use iron to give the water a chalybeate quality, which adds considerably to its virtue, perhaps our apparatus might be made of this metal.—That invented by Dr. Priestly, in the rude days of the discovery, may, however, answer; and it may be easily procured any where, or almost in any situation. In the army, elegance must give way to convenience in many things. This may be found described, and a drawing of it preserved, in Elliot's treatise on Mineral Waters, where both Dr. Priestly's pamphlet on the subject, and the apparatus, are transcribed, and to it I refer. But in the administration of fixable air in putrid fevers, and such like, perhaps the method mentioned in the Commentary on the subject by Dr. Dobson, may still be preferable. It seems at least more advantageous than the common neutral draughts, made by mixing the acid and alkali previous to exhibition, where so much of this valuable gas, on which the greatest part of the good effects of the medicine depends, evaporates by the act of effervescence.

The manner directed in this commentary is extremely simple. A certain quantity of
alkali

alkali is first dissolved in some water, then drank, and as much acid, either of lemons or distilled vinegar, as we know a priori, capable of saturating the alkali, is immediately to be swallowed. The extrication of the fixable air must take place in the stomach, and unite, with the contents of it, and otherwise be absorbed in greater quantity, and more effectually, in the same space of time.

Since the electrical fluid bears so large a share in the operations of animal and vegetable life, as our late discoveries with regard to it evidently show, it is but reasonable to suppose that health is greatly influenced by it; and indeed experiments incontestably prove the fact. Its permeability, which is perhaps beyond all other fluids in nature, would seem to render it almost the only effectual remedy in several diseases. In ophthalmies its utility is attested by many well authenticated cures.* In chronic rheumatism, we are told, it has proved a cure after all the articles of the *Materia Medica* ever prescribed for this complaint have failed. It has also been found no less useful in hemiplegia. In the form of lightning,

* See Cavallo, on Med. Elec.

ning, it has discussed tumors on the breast.* This happening accidentally, perhaps gave rise to its application to indolent tumors of a scirrhus nature, which we often find it successfully remove. We know also its beneficial effects in paralysis, as well as other diseases where the nervous system seems chiefly to be the seat of the complaint. It has also removed deafness, a case of which we find related in the Med. Comment. vol. 1. p. 370.

Since all these often occur among soldiers, regimental surgeons should undoubtedly have contrivances for its application. The many portable machines for electrical purposes, now in common use amongst all classes, and made by common mechanics, render its application in the army not only practicable, but easy and convenient, while the cheapness is no small inducement to their purchase. I have seen very neat ones, the glass cylinder, from a foot to fifteen inches in circumference, sold for little more than a guinea, with conductors, knobs to draw the sparks, chain, Leyden phial, &c. These are made so portable, that they

* See Bohadch. de util. Electric. in Art. Med.

they may be packed up in a box about a foot and half long, and so commodiously at the same time, that little is to be feared from the jolting of the waggons in marches, with respect to their breaking. To these should always be added an Electrometer, as it is absolutely necessary to know the strength of the electricity, lest a neglect in this point should be followed with disagreeable accidents, and bring its farther application unmeritedly into disrepute.

Fomentations, shocks, and sparks, are the three ways commonly now had recourse to in its application to the human body. The operator should be properly acquainted with the nature of conducting these, in order to render the electricity as effectual as possible; and for this reason it will be expedient that he apply himself a little to the study of electricity. What is necessary for his purpose, &c. its general stimulant effects, he may in a short time comprehend, and practice will render him sufficiently expert in its application. It is not absolutely necessary that he should be a deep Electrician, though the more he knows of this branch of natural philosophy, the more he will know of nature; and will the
better

better understand how to vary the application to accomplish his intention.

That it is a powerful stimulus is proved from the perspiration it induces on the part to which it is applied ; and that it constantly, as well as intimately pervades the body, is likewise demonstrated from applying it to a person during V. Section. If the blood only falls in drops from the vein, let the person be electrified, and it will now run in a full stream. If a capillary syphon be filled with water, which from the smallness of the tube can only fall from it in drops, let it be electrified, and the water will issue from it in a number of separate fine streams.

It renders bodies lighter, whether solid or fluid. To prove this, we have a number of experiments by Bohadch. I shall not take up the reader's time by a detail of them, but only present him with some of the author's conclusions, which are, " that electricity encreases the natural evaporation of fluids, unless such liquids are possessed of a great degree of viscosity, as is the case with olive oil :

" That this encrease in the evaporation of liquids, produced by electricity, is in proportion to their degree of volatility :

" That

“ That this encrease of evaporation, so produced on liquids, is in proportion to the extent of their surfaces, exposed to the atmosphere ; and that electricity has an evident effect in diminishing the weight even of solid bodies, when such a quantity of moisture is contained in them as is necessary for the purpose of evaporation.”

He produces an experiment to prove, that electricity being applied for some time to vessels replete with fluids, an encreased discharge of their contents is thereby always produced. This is similar to what we have already ventured to assert ; but as an illustration, I shall relate his experiment.—“ Let a “ common egg,” says he, “ be perforated at “ one end, so as to discharge all its contents, “ both the white and yolk ; and a syphon be- “ ing introduced so as not to touch the bottom “ of the egg, let it be completely filled with “ water, and then weighed : the egg is then “ to be emptied by making the water pass “ through the syphon, and by weighing again “ it may be known exactly what quantity of “ water is discharged in a given time. The “ egg is now to be filled again, and on being “ electrified for some hours, the water con-
R “ tained

“ tained in it will be found to flow with much
 “ greater rapidity than when no electricity was
 “ applied.”

The same author has taken some pains to show its effects in promoting vegetation ; but this being foreign to the present purpose, shall be passed over. Afterwards, he goes on to prove, by various experiments, the power of electricity in promoting the natural perspiration of animals. These were made on whelps, pigeons, and other living creatures, all which demonstrate the great activity of this fluid, and its power over the body.*

Some contend that electricity possesses a sedative, as well as a stimulant power. This they affirm is proved from its effects in easing pains. Shocks and sparks, say they, act by a stimulant power, while the aura, or electrical fomentation, gradually received into the body, acts sedatively. Whether this be fact or not, we shall not stop here to enquire. From the power, however, it possesses, of intimately pervading the finest tubes, it has been successfully applied to discuss obstructions of the glands. We hinted at this before. Hence it

* Vid. Bohadch de utilit. Electricit. in art. Med. seu in morb. Curand.

it has been found, that venereal buboes have been more speedily removed by it, than by any thing hitherto known. In the summer of 1782, an ingenious* physician told me of a very obstinate case of this kind completely dissolved by electricity in about three days.—Some have little faith in it; but because it does not cure all cases to which it is applied, is that a reason for altogether rejecting it?

If there was no other disease in which it was successful, but in buboes, this one alone, so frequent and so troublesome in the army, should induce us to try it. Every practitioner in the army knows too well the many inconveniences that daily arise from buboes both to himself and the patient. For my part, they have proved in my practice, far more troublesome than any other venereal ulcer I meet with.

Whatever some may advance to the contrary, I am persuaded, no advantage is obtained by encouraging suppuration by the application of poultices. As it is never safe to trust to the discharge of a buboe, for the

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compleat

• Dr. Macqueen.

compleat expulsion of the venereal virus, but highly necessary to administer its well-known antidote, mercury, we need not be anxious whether absorption from the inflamed glands should take place. The mercury meets the poison, and will destroy it. On the contrary, let us suppose the buboe opened, and a collection of matter discharged; are we sure no absorption takes place to infect the system? Can we boldly venture to affirm, that the virus is all expelled at the opening? What hinders absorption now? Nay, I am apt to think this the readiest time for it to be performed. We know that in the inoculation for the small-pox, absorption of the virus does not take place till after suppuration, and a multiplication of the matter inserted. This is proved by the infected piece having been cut out after the inflammation had begun, and by this means the small-pox prevented.—Now, as a multiplication of the matter happens in the buboe, and as we must allow that every particle of it is tainted, the lymphatics must take some of it up, and convey it to the blood. Besides, there is reason to suppose the absorption will go on in proportion to the surface laid open. Hence this operation
of

of the animal œconomy must be even greater after the buboe is opened.

If this be true, it follows, that we should never trust the cure to a ripened buboe, but always give mercury. If the buboe be so far advanced, before we see the patient, that a fluctuation of matter is perceptible, and discussion impracticable, it appears to me a safer way to allow it to burst, than to open it either with the knife, or with caustic. Although I never saw an accident from this which ended in death, yet such have been said to happen. A large and principal artery lies in the course of the gland, where the matter generally forms. If we should inadvertently run the knife too deep, and wound it, death must be the consequence, as I see no way by which the hemorrhage could be stopped; and in different subjects this vessel is differently situated. In one it lies deep, and out of the way; in another not only more superficial, but may otherwise vary in its course. But supposing the wounding of this vessel easily avoided; to heal up the part is often found impracticable. I have seen buboes for many months continue to discharge. I have seen sinuses form, and the sore often put on very alarm-

ing appearances. In the autumn of 1781, I had a female patient, who died from a mortified buboe. She was a girl of easy virtue, and had been neglected till the mortification had actually taken place. When I saw her first, she was in a high fever, and not knowing either her way of life, or that she laboured under a venereal disease, I prescribed for her fever only. The disagreeable odour in the room, I attributed to fæces left in the pot, and ordered the room to be cleaned out, and these removed. She lived alone, but had a father in the neighbourhood, who now came to see her. As she was considered by several, equally ignorant of her way of life with myself, in the light of a poor unfortunate girl, that had got a fever, some well-disposed persons, hearing of her distress, sent her nourishment; and a small collection of money was made for her. On my next visit, her father took me aside, on complaining that the smell still continued, and informed me of a *sore she had on her thigh*; on examining I found one of the most disagreeable sores in her groin I had ever seen.

She confessed the nature of it; that she had been ill of it several months, and that nothing applied could heal it. I dressed it, though a
most

most disagreeable task ; but the fever ran high, and the mortification had proceeded too far, having penetrated quite through the abdominal muscles, and her strength sinking, she died in a short time after.

I was informed by a physician of veracity, in December 1783, of a friend of his in Edinburgh, who has suffered in a most severe manner from the same cause. It is upwards of two years, he says, since the buboe was opened, but no medical treatment has succeeded in healing it, though the most eminent of the faculty have given their advice. The motion of the thigh is now greatly impeded, and it will be well, my informer adds, if the limb, in some time, will admit of any.

A surgeon of a militia corps informed me, in 1782, of a soldier that died from the same cause. The gentleman already mentioned * told me, while he attended lectures in Edinburgh, he saw a case of the same kind, of a very obstinate nature, under the care of Dr. Hope, that had very nearly proved fatal to the patient. And I may add one in my own practice. In autumn of 1782, Wright,

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a grenadier,

* Dr. Macqueen,

a grenadier, affected in a similar manner, was put under my care. The part mortified, and with great difficulty the progress was stopped by the use of hemlock in poultice, applied over the sore, and stupes of the warm decoction of the plant. He had been ill, it seems, near two months before I saw him, and he was after this near four months in the hospital before he could leave it to do his duty.—The case is as follows :

In the month of August 1782, Matthew Wright, a grenadier, was sent under my care for the cure of a venereal buboe. His general health was, when he came in, pretty good, and there were no other marks of the venereal disease about him. On further enquiry into his case, I found he had been ill at St. Alban's, where he contracted this buboe, and where about two months before it had been opened by the surgeon then attending the regiment.

He had been somehow neglected after the opening was made ; the surgeon perhaps supposing that nature would perform the rest of the cure, without any farther interposition of art.

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In the mean time, the regiment to which he belonged was ordered to encamp on the Suffolk coast. This was a long march for a person in his situation ; they halted, however, at Newmarket for ten days ; yet nothing was done till he was sent to the hospital in camp.

On examining into the state of the sore, I found that part of the opening made had closed up ; but a sinus was formed upwards of two inches and a half long, stretching upwards towards the abdomen, running between the skin and the muscles. I tried for some weeks to dry up the discharge, which was pretty copious, and heal up the part ; but my endeavours were in vain, and his general health, probably from confinement, as well as from the discharge, was diminishing apace, and he grew considerably emaciated.

I resolved at length to lay the sinus open, which being done, I found both a callosity and blackness in the course of it. This I endeavoured to remove, by Tinct. of Myrrh, and the Green Digestive ; and at last red precipitate was sprinkled over it. All would not do. He was carefully dressed twice a day by myself, for I would trust him to no other ;
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and over the dressings were applied poultices of bread and milk, to bring down the inflammation that surrounded the fore. All this was still to no purpose. The discharge increased, was fetid and ill coloured, and I feared a gangrene and mortification, not only from the ichor and general appearance of the fore, but from the inflammation that spread to a great distance round it over the integuments. He had till this time taken a mercurial pill of two grains, night and morning, since he came into the hospital, but it was now left off.—He suffered much; neither could he enjoy any refreshing sleep, or mitigation of his pain, though he had got opium from one grain to four at a dose. I put him upon a course of bark and wine, and increased each till he drank a bottle of the one, and took an ounce and half of the other daily. The fore not only now spread, but sunk deeper into the muscular substance.

The integuments separated entirely from them up to the os ilium, and forwards on the abdomen, towards the umbilicus, so that by lifting up the edge of the skin, a great part of the abdomen on this side could be seen under it. The cellular substance connecting

necting them together, melted down, while the gangrenous purpureo-scarlet colour still advanced externally.

I applied now every means in my power to obviate mortification. The medicines already mentioned were administered with punctuality, and stupes, composed of decoction of camomile flowers and wormwood, were applied as warm as he could bear them, an hour at a time, three times a day.

Hot flannels wrung out of them were clapped over the sore, and as soon as one grew cold, another was applied, which, from the penetrating nature of the vapour, I judged would infuse their antiseptic qualities better than if the decoction itself had been used. When this was finished, warm digestives were laid on, and over all a large poultice of bread and stale beer, renewed likewise three times a day. To this was added a generous diet, for his appetite did not fail so far as to prevent him from eating pretty strong food.

Want of sleep, and apprehension perhaps of his own danger, had rendered his pulse quick and weak, though he had nothing that
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he called sickness, save the uneasiness from his constant pain.

I still continued to flatter him with hopes of a cure, to prevent depression of spirits as much as possible, which is always an enemy to recovery from any illness whatever.

While things were in this desperate condition, I called at Yarmouth, on the ingenious physician, then of that town, already mentioned. I related the case to him, while he in return related to me one of a similar kind from the same cause, (and a soldier also) which he had seen in the Royal Infirmary of Edinburgh, and which was cured by hemlock poultice.

I procured a quantity of the stalks, made a strong decoction of them, with which I stiped his sore, as warm as he could bear, for about half an hour; then took a syringe, and threw it underneath the separated skin, where the stupe could not reach, applying the warm hemlock poultice, boiled up with some crumbs of bread over all, making it so large as to cover the whole enflamed part.

This was about 11 A. M. and about 3 P. M. these were removed, and the same treatment repeated. About eight the same evening

evening this practice was again had recourse to, and he got only a pint of wine this day. Next morning, when the dressings were removed, I found almost all the inflammation gone from the integuments, the sore emitting a less disagreeable smell, though I could not say the discharge of sanies was lessened, nor the colour of the sore more favourable. The same treatment was continued this day, with the addition of a scruple of pulvis cicutae, made into a bolus, with honey. I lessened the quantity of bark to six drams, and from this to three in a short time after.

He slept a little this night, which he had not done from the intense pain for many nights previous to this; and the succeeding night still more, till his rest gradually became as refreshing as in his former health. The wine was gradually left off also. In short, by pursuing this treatment, in three days the inflammation was not only entirely gone, but the wound sweetened, and altogether cleansed from the blackness that had all this time adhered to it; for the sloughs fell off, leaving the recti, and oblique muscles, red and well looking, though the mortification had penetrated quite through them. From this time
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he continued every day to mend. Had not this plan been happily hit on, I am confident he must have sunk in the space of forty-eight hours, at most, from the time this application was first made.

Since this I have experienced the good effects of hemlock water and poultice in two cases of ulcerated legs, both of which were in a very bad condition, being extremely foul.

I doubted for some time whether I was to attribute the cure to the hemlock poultice and powder, given internally, or to the water with which the ulcer was syringed. A fourth case of venereal ulcer, however, soon came under my care, which happened very fortunately to put this to the test.

The ulcers were extremely foul on each side above the os mali, or about the temples. Neither powder nor poultice was applied, but they were carefully syringed twice a day with the decoction of hemlock, and in a short time they began to mend: from whence I conclude, that the hemlock water applied to foul ulcers, not only cleanses and disposes them to heal, but mitigates the pain, proving beneficially sedative.—The syphilitic patient,

I have now mentioned, suffered for a long time much pain from these ulcers, which were under the care of a regimental surgeon, and only dressed with common digestives, till he was sent into the hospital.

Thus far of the dangerous effects of opening buboes. Was it necessary to give more authorities, of their bad effects, I might quote Plenck. These, however, may suffice.

But if the opening of buboes still be insisted on, a question arises which has been much agitated, whether caustic or the knife be preferable. Mr. Pott, whose authority is great in all cases of surgery, prefers caustic. He affirms from his own experience, that callosities round the edge of the sore always follow the use of the knife, which never happen from caustic. Mr. Sheldon, and others, I have heard confirm the same. Yet notwithstanding these authorities, I would venture to say, if the buboe be properly suppurated, and the integuments rendered sufficiently thin, it will be of little consequence whether a knife, the caustic, or a puncture made by a lancet, gives vent to the suppurated matter.

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From the unfortunate cases I have seen, I shall on all occasions endeavour in my future practice in this disease, to discuss buboes; and for this purpose in obstinate cases I confess I entertain considerable expectations from electricity. A regimental surgeon can never make the labour, requisite in applying electricity, any objection, since he has always men enough at his command capable of giving their assistance. One or more orderly men are constantly in the hospital, and with very little trouble they may be taught to apply it sufficiently well, at least with his inspecting the whole.

This, which I would place among a regimental surgeon's instruments, is, as far as I know, little used in army practice; but from the success that has followed its application in many diseases, besides what has been mentioned, it is to be regretted its use is not more universal. Perhaps there may be still diseases for which it has never yet been tried, that might yield to its influence. Time, however, and opportunities of making such experiments, will determine this point. It becomes our duty in the mean time to apply it where we have the testimony of experience,

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and the assistance of rational argument to determine in its favour. I know some eminent physicians who are not very sanguine in their hopes from electricity; and who contend they speak from being repeatedly disappointed by it in their expectations. But others, and these not a few, speak as confidently on the other side; and I am inclined, from what we know of the nature of this subtile fluid, to join them in its favour.

CHAPTER IX.

OF THE PERUSAL OF BOOKS, AND OF SOME WHICH
SHOULD FORM PART OF HIS LIBRARY.

Books, without doubt, the regimental surgeon ought to peruse. Without an almost daily application to them, his practice must be mere quackery, and his views confined. We have here the advice of the immortal Bacon to instigate us, whose opinion, as well as example, we need not blush to follow. "Books," says he, "will speak, when counsellors blanch; therefore it is good to be conversant with them."*

One principal use of reading will be, to know what the medical world are doing; or what they have done; and to repeat their practice, or condemn it, as he sees fit, and as his own judgement directs him. By reading, he will become acquainted with the opinions of the most eminent of the profession; and he may be stimulated to excel, as many of the authors, whose works he peruses, have done. By reading, united with opportunities of practice, he will be able to make useful observations. A correspondence also with respectable and learned men of the profession, will

* Bacon, of Counsel.

will enable him still farther to practice successfully. He will know all the discoveries made in philosophy, and chiefly distinguish what more immediately belongs to his own profession. He will observe the fallacies of theoretical opinion detected by fortunate facts; for medicine, like other branches of science, is progressive; and thence he will be early enabled to form his practice, and rectify it accordingly: while he that reads little, and converses less with men of the profession, must go on in a common, though erroneous tract. Thus information will enable him to reject hasty and ill-grounded conclusions, or confirm his doubtful conjectures, which he now sees were founded on rational induction.

I do not mean here a too desultory plan, without any regular method. Some object should always be held in view, to which his researches should ultimately tend. The learned Zimmerman says, "it is not too extensive a reading that renders a man learned. Reading in general impairs ordinary minds. They soon become like a sieve, and retain nothing that is thrown into them. It seems right to adopt a middle way between the two extremes." *

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* Experience in Physf.

In another place he tells us, what we must acknowledge, that “ erudition may be distinguished from true learning. Erudition, considered by itself, is a mixture of good and bad things, often contradictory to each other, and badly digested ; which burthen the memory at the expence of common sense, and render the simply lettered man rich in provisions, that are useless, and poor in ideas ; great in minute things, and very little in great ones.

“ The most learned physician is therefore a very useless man, if he has not read rather with a view to improve his genius, than to burthen his memory ; and to collect together interesting truths, rather than to accumulate words.”

“ True science,” said Plato and Aristotle, consists not so much in knowing and adopting what others have known, as in judging within ourselves on what we read or see. It consists in seizing the true spirit of a thing ; in seeing it in its true light ; in distinguishing what men have added to it ; in strengthening our judgement, and ornamenting our memory ; in extending our knowledge ; and, in short, in being the
“ dupes

“ dupes neither of men, time, place, nor authority. This is true science.” Erudition and true learning may be contrasted, as a modern poet has done knowledge and wisdom.

Knowledge and wisdom far from being one,
Have oftimes no connection. Knowledge dwells
In heads replete with thoughts of other men,
Wisdom in minds attentive to their own.
Knowledge a rude unprofitable mass,
The meer materials with which wisdom builds,
Till smooth'd, and squar'd, and fitted to its place,
Does but incumber whom it seems t'enrich.
Knowledge is proud that he has learn'd so much,
Wisdom is humble that he knows no more. *

I must not take on me to point out all the different authors the regimental surgeon ought to read. His own judgement must in a great measure guide him here. But if he possesses a real desire for improvement, he will not be sparing in this point. It has been often said, that to read little, and reflect much, is the surest way to improvement. The rule, I believe, in a general sense, is good. For to read over a certain number of pages, without digesting them, without making ourselves

S 3 master

master of the author's arguments, and entering into his views, is as bad, with respect to the improvement we receive; as reading none; for the memory retains nothing of such superficial perusal, since neither the attention nor the judgement were engaged. This may be called reading to kill time; and we might as well peruse a novel, as a medical author, hurried over in this way. If to kill time be the sole purpose of our reading, it matters not what the subject be. Some are constant readers, and greedily catch at every thing they meet, yet never learn any thing. There is a middle point, if we can find it, between these extremes; and this it is our business to search after; but proper attention to what we read is undoubtedly necessary.

"Attention," says the author lately quoted, "may be considered as contributing much to the genius of observation. It is a lens, which being applied to the different parts of an object, enables us to remark other parts, which we should not distinguish without its assistance. The more we exercise our attention, the more shall we discover of every object. A botanist sees in a plant more than other men do. He observes in it what ought to be seen; whereas they

“ they (*i. e.* the inattentive) know nothing even
 “ of what they do see. Our attention be-
 “ comes more perfect by the advantages we
 “ derive from a habit of observing.” And
 this is as applicable in reading, as in ob-
 serving the phænomena of nature.

But another caution will be equally neces-
 sary, not to take every thing for fact of which
 books inform us; nor ever to suffer ourselves
 to be led away by great names. The greatest
 men have committed oversights—errors. Let
 us call to our aid both our judgement, and our
 experience; and, as often as is in our power, the
 judgement and experience of those friends,
 from whom we may expect assistance. If we
 follow not this plan, books may prove to us
 as the poet has described them, when he tells
 us they

——Are not seldom talismans, and spells;
 By which the magic art of shrewder wits
 Holds an unthinking multitude enthrall'd.
 Some to the fascination of a name
 Surrender judgement, hood-wink'd. Some the stile
 Infatuates, and thro' labyrinths and wilds
 Of error leads them by a tune entranc'd.
 While sloth seduces more, too weak to bear
 The insupportable fatigue of thought,
 And swallow, therefore, without pause or choice,
 The total grist unsifted, husks and all.*

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* Cowper ut supra.

The choice of authors is a material circumstance. Time is precious; is short; and should not be wasted wantonly. Durst I pretend to offer advice in an affair of such importance, it would be to caution these young in the profession against engaging with too great a variety of books at once. A few systematic authors should be first well understood, as they give a general view of the science. After this, they may, with less danger of being led astray, descend to those who have treated on particular diseases.—This may perhaps be said to apply to a college plan of education, more than to a regimental surgeon's. We still hope he has received the elements of his medical education in some established seminary of this kind.

Opportunities of this nature will furnish him with a foundation to proceed on. It will likewise enable him to select what is useful from what is trifling; and assist him in separating what may more properly belong to him in his situation of an army surgeon, from what is foreign to his way of life. He will then be in much less danger of swallowing

——“ without pause, or choice,

“ The total grist unsifted, husks, and all.”

"In order to make observations himself, it will be necessary for him to have fixed principles to build upon. He will be capable of distinguishing diseases only in proportion as he is previously acquainted with their history. Hence the utility and necessity of reading."

"A physician, who ventures to approach the bedside of a patient," (and we may apply the observation to an army surgeon, who fills the place of a physician) "without this previous historical knowledge, can be considered only as an useless and idle spectator."

"Happy is the patient whose physician, with such limited knowledge, is sufficiently timid, and diffident to remain altogether inactive."

"May it not be asked, whether Sydenham himself did not lose many patients, from not having derived from the writings of others, by an extensive reading, many parts of knowledge, which he could acquire only by infinite care and industry."

"A physician who has not read, will be exposed constantly to fear and uncertainty. His observations will be confined within a very narrow circle."

"It

“ It is well known how much time is necessary for the perfection of any art ; whereas reading furnishes us in a very short time with the discoveries of all ages. A single moment is sufficient to inform us of a great many truths, which were purchased by the care and trouble of years.”

“ A thousand physicians, said Rhazes, have laboured for a thousand years past for the improvement of physic, and it is by carefully reading their works, that a man will inform himself of more things during a very short life, than he would by running from patient to patient, during a thousand years.”

“ Reading makes us familiar with the methods of every time, and every country.”

“ A man of genius soon perceives the modification he is to adopt, when he is about to put the precepts of others in practice.”

A regimental practitioner cannot carry a large library about with him, from place to place, from country to country, where his unsettled life leads him. The few books therefore he should peruse, ought to be principal ones, *i. e.* partly systematic, and partly such as treat on separate diseases. Every one should possess

possess an outline, a general notion of all the diseases incident to the human body. Here Cullen's outlines, now perhaps the best as well as most fashionable, may be recommended.— After this, such authors should be had, as have treated of the diseases most incident to troops.

The scurvy is chiefly observed at sea, and in long voyages ; but it is by no means always confined to mariners. We meet with many instances of it among soldiers. In garrisons, army surgeons will meet it. It raged violently in Minorca, during the late war, and was one of the means of enabling our enemies to subdue the island. And in the war previous to this it raged with considerable violence likewise among the prisoners at Winchester in England.

Lynd has written successfully on this disease. His opportunities of seeing it were great, his judgment clear, and his observations are always important. But a late author* has taken a more extensive view of the subject, and seems to have investigated it with great accuracy, and as it would appear has pointed

* Vide. Trotter on Scurvy, 2d edition.

pointed out better methods of practice than have hitherto been attempted. Lynd's treatise likewise on Hot Climates is an useful work. Sir John Pringle, who spent many years of his life in camps, and among soldiers, has likewise left practitioners in the same line a most valuable book. Here the surgeon will find information on almost every disease that will occur to him in the army. Monro also had good opportunities, and did not let them pass unnoticed. His book on the diseases of the army is an useful performance. The same author wrote on Dropsy, another disease that regimental surgeons will occasionally meet with.

Dysentery has been long noted for raging in camps. Many things indeed concur in the army to give rise to it; particularly if troops be placed for any length of time in a moist, damp situation. The celebrated Zimmerman has treated this disease with much perspicuity and judgment. These, and some others, professedly on such diseases as he has reason to expect among the privates, must form part of his library.

Cullen's Nosology, notwithstanding what some may have thrown out against works of this nature, in my opinion, he will find much assistance

assistance from. Here is not only an arrangement, but, what is of more material consequence, the principal symptoms of all diseases. I must not omit Le Roy on Prognostics in acute diseases. It seems to be an useful performance.

The venereal disease is so universal in the army, that it would be unpardonable not to have some of the best treatises on it. But the authors that have written here are so numerous, that it becomes no easy task to make a choice. Almost all of them differ; and almost all of them profess to differ from their experience of the futility of the methods of their predecessors. Such as have written within the last twenty years on it, have, however, treated it most rationally. Among these are Simmons, Andree, Sweidiar, and some others; but I shall leave the choice to his own judgment.

The ingenious and indefatigable Mr. Hunter has lately given us a large and systematic work on it; from which, notwithstanding the criticisms it has undergone, he may perhaps find more assistance than from most authors on the subject.

Sore

Sore legs will often be met with in the army. He must therefore possess some books that treat professedly on ulcers of these. Bell, Rowley, and Underwood, are the latest, and I believe the best on the subject. From the frequent colds to which soldiers are exposed, it is no wonder we find catarrhal affections so numerous among them. Mudge has written the best on the subject. An ingenious author, Doctor Beddoes, amongst other essays of importance, has likewise favoured us with one on this. His thoughts here, as in most other diseases on which he has written, differ from all authors that have gone before him ; and, if he be right, other authors must consequently be wrong ; for the instrument, viz. an inhaler, in which Mudge and others place the greatest part of the cure, as well as warmth and gentle breathing sweats, are by him reprobated. The reader will therefore please to consult the author on this subject, and steer between these discordant opinions as his reason may direct him.

This author has turned his attention, however, more to the prevention of the disorder than to its cure when once it is induced ; for I think he would not at that time have recommended

mended the patient to be removed into the open air, or judge it prudent to place him in a very cool apartment, though he may be of opinion, as I most fully am, that great degrees of heat when the disease is formed, or highly tempered cordials, must be pernicious: but there is measure in all things; est modus in rebus, to use a common adage.

I have unquestionably found the inhaler of great use, and I do not apprehend I deceived myself in this respect, or attributed virtues to a means of alleviation, where none were to be found. The cases wherein I have applied this instrument with effect, were in such as have been accompanied with inflammation in the fauces and considerable tumefaction of the tonsils, with soreness in swallowing and with great cough.

An inflammation of Sneider's membrane, with that lining the fauces, the discharge of thin mucus from the nose which is the consequence of the former, and the constant and tickling cough produced by the latter, must be objects of attention, and the cure consists in their removal. Gentle opiates, with plenty of bland fluids, seem well adapted to mitigate the one, and rest, (which a gentle opiate may procure)

procure) will be useful in restraining the other. The irritability will be lessened on both these secreting surfaces; the mucus on both will thicken by its remora on the parts, and the disease, with its accompanying celerity of pulse will yield. The accumulated irritability, to speak the language of Girtanner and others, a language well suited to the idea to be conveyed, induced by the higher degrees of cold, cannot be safely removed by the extreme and sudden exposure to a large fire and heated apartment, without producing in the system proportionable degrees of inflammation. The rules which Doctor Beddoes has laid down on this head, I am convinced are just, —and most catarrhs, as well as other inflammatory disorders, might be avoided by observing them.

The different inflammatory diseases arise from one cause, and are chiefly cured by the same means; nay, perhaps all inflammations spring from accumulated irritability, and they become different in name according to the organ affected; and this or that organ will suffer according to the state of its health at the time. That colds and even pneumonic affections are not formed till after exposure to heat, I
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am convinced by what has taken place both in my own person and in others. I have made this remark for years past.

About three years ago I had a strong instance of this, which frequently afterwards made me turn my attention to this subject.

About the time above specified, a poor young fellow knocked at my door, and introduced himself to my notice as having once belonged to the regiment in which I formerly served. I remembered him indeed, both from his situation (a drum-boy) in the regiment, and some illnesses he had passed through under my direction. Watson, (this was his name) to say the truth, was not among the most regular in his behaviour. He had been dismissed at the conclusion of the last war, and had suffered various vicissitudes since. He applied for charity, especially for some old cloaths and shoes.

It was now, I think, the end of February; the weather had been for some time cold, and that morning in particular was very inclement; it was hail and fleet. My heart felt distress at his condition. He had on old thread stockings much torn, without shoes; neither shirt nor waistcoat; the tattered coat

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that hung on him was so worn, that his naked body was exposed through different parts of it : his arms as well as his thighs almost totally defenseless against the piercing cold of the day.—Thus stood Watson before me. He had not long to plead, for in less than half an hour I equipped him in a compleat suit. The waistcoat I gave him was one I had lately worn in cold weather, such as the present, when my profession called me much abroad. It was lined with flannel, and was besides of warm materials. After such expressions of gratitude as are common on such occasions, he went away : but I was not a little mortified two days after, at being told by a neighbour that he was walking about the streets in his old coat, and selling his wares, for I had provided him with a small stock of needles, pins, ballads, and little books to sell, towards his support.

Being irritated at this conduct, I made search for, and soon found out his place of abode. I enquired what he had done with his cloaths ? The fellow's reply was not less expressive of his feelings, than extraordinary to me.—“ If,” said he, “ your honour obliges me to wear that waistcoat and those
“ thick

“thick stockings and breeches, I shall be a
 “dead man by to-morrow. Your honour
 “does not know what I suffered the first
 “night, and I have been ill ever since.” True
 indeed I found him considerably feverish, and
 this accompanied with a severe cough: he
 had pains in his breast, and over his body,
 and in a word, was affected not only with a
 high degree of catarrh, but with some pneu-
 monic inflammation. When I first saw him,
 though cold and cheerless, yet he had neither
 cough, pain, nor complaint of any kind, but
 was in perfect health. The warm clothing,
 to which he was unaccustomed, proved to
 him a great misfortune, and so he considered
 it. A few days after the waistcoat was seen
 hanging at the door of an old cloaths-shop,
 where he left it for what it would bring. I
 am convinced that the difference of tempera-
 ture between very warm cloaths, and almost
 total nakedness, induced immediately the above
 disease.

I remember a very striking instance in my-
 self some years ago, where I was exposed for
 some hours to cold and wet, and immediately
 after came into a warm room, and stood for a
 considerable time before a large fire; though I

instantly changed my cloaths on entering the apartment. My voice became hoarse in less than an hour ; in a short time I began to cough ; and in a word I suffered for near a fortnight with a severe catarrh.

In April 1794, I came from London, where I had been on business a week ; the day of my return was wet, windy, and cold, the distance I had to travel was seventy miles, and I was about eleven hours on the journey. Soon after I came to my own house I drank one glass of wine, and a little warm milk about a quarter of an hour after, and went to bed. My bed was covered with considerably more cloaths than my London bed had been the previous week. I awoke that night in a fever ; and contracted such a cough as did not leave me till three weeks after. An inflammation also attacked my eyes, which of late have been the weakest part of my frame, the consequences of which I severely felt. When I went to London it was in a night coach, and though the night was extremely bad, and my bed in the metropolis much lighter covered than my own at home, I escaped a cold. I went then, as the reader perceives, from a warmer to a colder bed, and
though

though in town the fires were much smaller than I use at my own house, yet no catarrh followed : when I came from a colder into a warmer situation, the reverse was the consequence. From this I conclude, let the explanation be as it may, that the danger of catarrhs arises not so much in a transition from heat to cold, as from cold to heat. I remember when in the last (American) war I lay in camp, though the weather was extremely cold and snowy in October and November, we had few or no catarrhs. There were no fires here, nor warmer apartments than the canvas tents, when the men came cold from field-exercise or other duty. In winter, and in quarters, we were more sickly ; and I am certain that all inflammatory diseases are oftener found in quarters than in the field. This is a matter well deserving mature deliberation.

Heated rooms, with warm and stimulating drinks such as spirituous liquors, &c. after exposure to much cold, must be pernicious. In this state of the body, I mean its cold state, or during its accumulated irritability, a very small stimulus has active effects on the habit, whereas large and powerful ones are

dangerous, and stimulants still more strong may induce sudden death. Of this the frost-bitten limb affords an apt example. A gradual change of temperature is the surest means to escape these evils.

Soldiers are frequently exposed to great cold, and many of them, when in towns, find opportunities of taking hot and stimulating liquors during this state of body, and even of remaining in warm rooms, provided they have money or credit to gain them admittance to the kitchen of a public-house, the warmest apartment of every dwelling. Catarrhs are a frequent disease among them, and are often accompanied with other inflammatory affections. By attending to the above considerations they might be avoided.

Doctor Beddoes has written a small tract for the use of the poor, called *A guide to self-preservation*, and at so low a price as three-pence; it is composed in a simple and plain stile, and might be useful to this class of men on the very subject of which we are speaking. The surgeon would find his account in having these distributed among the privates. It might save him both trouble and expence, above the value of the book, were he even at his
own

own cost to give away a certain number to each company. The Doctor's opinion, more fully illustrated in other parts of his writings, will no less merit the army practitioner's consideration.

Not only from the nature of a soldier's life, but from ill treated catarrhs, we as often meet with phthisis pulmonalis. To soldiers in Britain, the changeable nature of the climate makes this complaint still more frequent. We must not omit some treatises then on this malady. Among many others, Reid and Foart-Simmons have written on the subject, and both with success. Doctor Beddoes has lately given the world an essay on this subject, in which much ingenious reasoning is displayed, and which the reader will find advantage in consulting. In this work he has taken a view of the disease very different from all authors who have hitherto considered it. He supposes the complaint to arise from a superoxygenated state of the body to adopt the language of the new chymistry ; and his cure, of course, is instituted by attempting to remove this. For this purpose he lowers the quality of the atmospheric air by mixing it with hydrogen. To answer this end he has

formed an apparatus by which he is enabled conveniently to lower the atmospheric air in the chamber, to the standard which he thinks best adapted to his patients cure. But we must refer the reader to the treatise itself for a fuller explanation of this matter; since all other methods to cure this dire complaint have hitherto failed, it is certainly allowable to attempt something different to arrive at this wished for end. However new and theoretical therefore his opinions and practice may appear, and however severe the censures of various critics against him may be, we hope this ingenious philosopher will not be dismayed, but persevere till a full and fair trial be given to the subject. The best and most useful discoveries have ever at first met with the strongest opposition.

Both Small-pox and Measles are to be met with in regimental practice, and treatises on these he likewise should possess.

Among many authors on the former disease, Dr. Walker has laid before the world a large treatise containing many useful observations, especially on the sequilæ of this affection, and the method of successfully eliminating from the body the dregs of the variolous matter.

matter. But as this author has taken considerable pains to declaim against one of the most useful improvements which this, or perhaps any other disease, has ever undergone, viz. inoculation, the reader is cautioned to pay proper attention to his arguments on this head, before he admits them. A gentleman at Alloa has well answered this part of Dr. Walker's book; but we suppose little need be said on a subject of which long experience has proved the utility.

I must here take the liberty of cautioning the young practitioner against some errors I have more than once observed in the insertion of the variolous matter; notwithstanding it has been practised in this country for upwards of seventy years, some practitioners still perform it in a clumsy and unscientific manner. A physician of undoubted veracity complained to me a few years ago, of an error of this sort, into which a practitioner fell. The subject was a child, whose parents were in genteel life, and wishing to have it inoculated under the inspection of the first medical men of the place; he, and a principal surgeon, long resident there, were called in. The latter, whose province it was to in-
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fert the matter, made a wound in the infant's arm large enough to contain (as my informer says) two large peas. The consequence was not only a hemorrhage, and a great degree of inflammation, as might be expected, but the infant, from pain and fright, was thrown into convulsions, from which it could scarcely be recovered. When my friend remonstrated against this method of practice, he was answered by pleading the necessity of making a large wound to insure success in the operation. But surely when we consider the superficial course of the absorbents, and their being so universally diffused over the body, we have no reason to apprehend that a small insertion may not expose the variolous matter to a sufficient number of them. It may be pleaded, as an excuse for this gentleman, that he was an old practitioner, and had, no doubt, often seen the method he pursued attended with success.

Another error, hitherto too prevalent, is the severe abstinence enjoined during the preparatory stage, as it is called. Till lately, even the best inoculators carried this plan too far. Sutton, a man of but small medical information, directed it, and all his followers trod in his

his steps. It is scarcely necessary here, perhaps, to point out the dire effects of this plan; it has been universally followed by cahexies, and other diseases proceeding from debility, which have rendered the days of the sufferers both short and miserable!

It is true, they have got through the disease with ease, and with few pustules, but the above consequences have nevertheless taken place. An excellent paper on this subject may be found in the London Medical Transactions, by the late Dr. Chapman.

The method I have generally employed, and which I hope is now pretty universal, is as follows: I insert the matter, and, if thought necessary, one or two gentle purges are exhibited in the course of the week; but this not universally; for should the patient appear of a weak habit, or debilitated by previous disease, not only this is omitted, but he is allowed, if not strengthening medicines, at least more generous diet. Unless in full and gross habits, I never interdict a moderate share of meat. When the eruptive fever commences, I am careful in moderating it as much as possible; by keeping the patient cool, and having his chamber well ventilated;
by

by exhibiting moderate portions of the native vegetable acids in his drink, and, in a word, by the strict antiphlogistic plan.—After the eruptive fever, and when the pustules are thrown on the surface, a greater latitude in diet may be allowed, for I have then found it right to support the strength, that the supuration may be duly performed. When this has not been done, the consequences have been affections of the bowels, both troublesome and dangerous, but which I have generally been able to remove by warm cordials, in doses, according to the patient's age and strength. When the pustules have been numerous, and almost running into the confluent kind, much care will be necessary during the time of the secondary fever, and afterwards. But the rules laid down by the best authors on the natural small-pox, are here to be followed, viz. gentle and repeated purging, and acescent and antiseptic food, yet not altogether of a debilitating kind. In this way I have successfully treated near two thousand patients in the course of the last ten years, in this neighbourhood, without the loss of a patient, one only excepted, whose death will fully prove the necessity of the treatment

treatment above laid down.—This patient, who was about twenty-three years of age, had prepared herself in the most rigid and abstemious manner for near a month before she came to be inoculated. The matter was inserted, at the distance of a few days each time, three different times before it produced the desired effect, and even then it was fourteen days before the eruptive fever commenced; I attributed this to the debilitated state of her habit. She had the disease in a very formidable manner, but escaped, though not without the greatest attention, till not only the secondary fever, but also all the pustules were removed. She now again, by the advice of some officious friends, began to pursue her abstemious plan, and in a very short time sunk a martyr to the disease. She had been cautioned, from the beginning, against abstemious living, but my admonitions were not attended to.

He must not omit a treatise on Anatomy, particularly as dissections have been recommended, to brighten up his memory, or to refer to occasionally. Some anatomical plates will likewise be necessary. Cheselden's Anatomy, as he is not to enter into the minutiae,
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may perhaps answer. It has some useful plates; and to these may be added, Innes's Tables, or Albinus's, reduced by Bell, an engraver in Edinburgh. Winslow's Anatomy is the most correct, and if he has room he may provide himself with it.

The discovery of the absorbent system, one of the greatest since that of the circulation of the blood, and not less important, or less general, in the animal œconomy, has opened a field which the medical practitioner ought not to omit cultivating. By understanding the situation of these vessels, in the human body, as far as they are yet demonstrated, he will be the better enabled on many occasions, to obviate disease, or remove it when present. The best work on this subject is that lately published by Mr. Cruikshanks.

He should next provide a few books on Chemistry: Beaumé's Manual, or some such. If he can find convenience to carry the Chymical Dictionary of Maquier, so much the better, as also his Elements. A great variety of celebrated works might be recommended on this useful, as well as beautiful study; but he must content himself with a few, from the
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nature of his situation, which forbids a large collection.

In the course of the last ten years, important discoveries have been made in this branch of science, insomuch as to give entirely a new turn to the study. The former names used here have been altogether changed in consequence of this. From the multiplicity of discoveries, indeed, it was necessary to form a new language, for the old one was no longer useful. Hence some ingenious men of distinguished eminence in this branch, at the head of whom was M. Lavoisier, set themselves about forming appropriated terms to express it by. As most of these discoveries were in elastic fluids, to which the name *airs* or *gases* have been applied, the subject in general is now stiled *pneumatic*, in contradistinction to the old chemistry.—Lavoisier's Elements of Chemistry, as containing this new nomenclature, cannot be omitted by the student who wishes to become an adept in these doctrines. Fourcroy, Bergman, Chaptal, and many others, have given us useful performances here, from whom he may obtain all the information necessary. If he wishes to examine the lately disputed doctrine of phlogiston, he may find the

the chief arguments for and against it in a small octavo performance, by Dr. Higgins. The most eminent chymists indeed now, both of this and other countries, have adopted this new language, and became converts to the antiphlogistic doctrines.

Nor must he omit some authors on the *Materia Medica*. Alston's and Cullen's are good performances. Among the Dispensaries, he may purchase Lewis's, the Edinburgh last edition, Berkenhaut's, and the London, a new edition of which is daily expected*.

To refresh his memory, he should have some author on general physiology. Perhaps Hallers, I mean the small edition by Cullen, will suffice; and to this, if possible, let him add Morgagni on the Causes and Seats of Diseases; it is a most useful collection. In Dr. Cullen's first lines, he will find an excellent account of fevers; but for more particulars, he must have recourse to authors, who have made this their sole object.

Clarke's Treatise on Fevers, among many others that might be mentioned, is, I think, a good performance. Could he find room to carry Van Swieten's Commentaries on Boerhaave's

* This edition has several years ago been laid before the public.

haave's Aphorisms with him, he may occasionally reap much advantage from perusing it on almost every disease to which the human body is subject ; Here again I must leave his own judgement to decide.

Warner has written on the Eye ; Ware on Ophthalmia ; both which are good performances.

It will be said, why such a number of books, that comprehend more a course of study adapted for a physician than a surgeon ? This is the very reason I recommend them : we all know regimental practice partakes more of the physician's than the surgeon's province. It is on this very idea I have all along proceeded. We oftener meet with fevers, and other contagious and epidemic diseases among soldiers, than such only as need external treatment, and the hand of the operative surgeon.

Besides these, which I call more necessary, he may purchase others as he sees occasion. This will form a little, but useful library, which it should be the care of the Colonel to order to be carried with the baggage, as punctually as he would the colours of the regiment.

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With regard to books on operative surgery perhaps Heister's and Bell's are the best systematical works; no others need therefore be recommended. Sharp's Operations as far as they go, are allowed to be accurate: Wise-man's Surgery is a good book: the most useful of Pott's works should not be omitted: the whole would make a good addition to his military library, if he finds he can remove them easily with him on marches. Alanson has lately written a treatise on Amputation; but to take notice of all the authors that may deserve his attention would lead us too far.

Since ruptures are a disease which will not permit those afflicted with it to be continued in the army, as the constant exercise their duty calls them to perform, must inevitably obstruct their cure, and render them always liable to insurmountable difficulties, I need not recommend books on the subject. Both Bell in his system, and Pott have, however, treated fully on them; which may be consulted as convenience serves. It is undoubtedly proper that a regimental surgeon should be acquainted with the treatment of every disease which surgery comprehends; but it may not be practicable for him to convey

vey from place to place all the books he might otherwise think necessary on these subjects. He must therefore content himself with a few, but these few, as we have said, should be well chosen; and the choice in a great measure must be left to himself.

There are many treatises on particular subjects in surgery, some of which he may add to his collection, if it be convenient, and his portable library be not already too much swelled. Among these I may mention O'Halleron on Gangrene; Dease on Wounds of the Head; and Ranby on Gun-shot Wounds; though it will be seldom, in all probability, that cases of this last-mentioned kind will occur, notwithstanding he practises in the army; because battles very rarely happen. Yet this will be no reason for his entire neglect of the subject; for should only one gun-shot wound occur in twenty years, he ought not to be ignorant of the method of treatment.

On this subject, however, I meant to deliver my opinion at pretty full length; but I find, by an advertisement, that there is in the press a work on it from so able a pen, (the late Mr. Hunter's) as will make the attempt here unnecessary. From this writer much

may be expected; for no subject which ever engaged his attention, did he leave without a full and complete investigation.— From this work then we may naturally expect all that is necessary on this head to instruct the young practitioner in this branch of his profession.

Since the soldiers will frequently call him to visit their wives, which charity, we hope, will induce him to do; and since much of his attendance among them will be with childbed women, he must not omit some practical treatises on midwifery. Smellie's Treatise in the octavo edition, may be conveniently carried, to which should be added his plates reduced, to answer this edition, and sold by Elliot of Edinburgh.

He may likewise provide himself with Hamilton's Treatise on the same subject. Mr. White of Manchester has written an useful treatise on the diseases incident to lying-in women, which he should not omit. And lately the same author has obliged the world with a small tract on the swelling of the legs, so often the consequence of child-bearing. Though the women of a regiment are not often subject to complaints after child-birth, yet

yet not only this happens among them, but one of a much more dreadful nature ; I mean the puerperal fever. Cases of difficult labour take place sometimes even here, which reduces their strength, and renders them more obnoxious to those diseases that are the consequences of weakness.

On the puerperal fever, Leak, Hulme, Fothergill, and others have written ; he may chuse which he thinks best : the last-mentioned author is the latest, and he asserts, that a cure is at last found out for this fatal disease, from which hitherto scarcely ever a woman recovered. It seems M. Doulcet, from much practice in the Hotel Dieu in Paris, found that it yielded to gentle vomits often repeated. With respect to the seat of this disease, authors are greatly divided : some assert, that the intestines and Omentum are the seat of the affection, which they say arises from an inflammation induced on these parts from the pressure of the womb in the last months of gestation. But I have heard a celebrated anatomist in London declare that he has dissected many who died of it, yet never found an instance of inflammation in the Omentum,

All possible care should be taken to avoid

Soldiers wives should be looked on as the

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respective societies, and therefore ought equally to be taken care of. They bring up many useful soldiers for his Majesty's service, which is still a farther reason not to allow them to be neglected. If the surgeon gives them his assistance in their sickness, it is as much as can be expected on his part. Any other charitable donations of which they may from time to time stand in need, should come from a voluntary contribution among the corps. I can by no means consider them as the least useful part of the army; and surely our care of them ought to be in proportion: but this subject I have treated of elsewhere. *

I am persuaded that some attention of this kind would be the means of more marriages, and less uncleanness in the ranks. It appears somewhat strange that soldiers wives and widows (I do not mean officers) have never been thought worthy the notice of government. Might not some scheme useful to his Majesty's service, as well as elymofinary, be formed in favour of the women of the different regiments? Premiums might be granted to the mothers of legitimate children, whose

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sons

* See "Thoughts submitted to Officers, relative to a regimental fund for the sick wives of the soldiery."

sons were born in the army and entered into the service, over and above the common bounty. I offer this only as a hint to be improved on by such as may have it more in their power. I believe it would encourage population; which in the army, in proportion to numbers, comes far short of what it is in other situations, and among other classes of men. For promiscuous commerce with prostitutes, so frequent among soldiers, prevents it.

Denman has written on difficult Labours, and uterine Hæmorrhages; on the last we have also a good treatise by Rigby. They are both books of small price, and contain useful information.

Since electricity has been recommended, some books on this subject must also be added to the surgeon's collection. Among so many treatises on it, we are at a loss what to select. The plainest and most easily comprehended is however the fittest for regimental use. Tho' if the surgeon has been liberally educated, this subject will be familiar to him. Among the many books of this kind extant, perhaps that by Cavallo is as plain and simple

simple as any. I believe Adams is however the latest on the subject.* This then, with the same author's Medical Electricity, and Priestly's history of the subject, may suffice. Perhaps the last may be dispensed with; but if he wishes to see the progress of the subject from its first discovery, this will afford him ample information and satisfaction.

To his medical library he will still find advantage in adding periodical publications. Dr. Duncan's Commentaries, and the London Medical Journal, stand at the head of these in Britain. If it was only for the account of new books, they would afford him satisfaction: but they go farther, and admit many useful papers, and hints not to be met with elsewhere. In a word, they are an useful medical and philosophical newspaper, communicating the earliest information of the labours of the learned in all parts of the world.

With respect to books on mineral waters, these may be the less useful, as soldiers can never have the advantage of this medicine, except in the form of fixed air, as already mentioned.

* Since the first edition, many other treatises on this subject have been published.

mentioned. But tho' mineral waters be never prescribed by regimental surgeons to the privates, they sometimes are to the officers : and since his advice may be asked concerning their use, it is altogether proper he should make himself acquainted with the nature of the most noted of the mineral springs. Officers are often afflicted with chronic diseases from the changes of climate and other vicissitudes their way of life has subjected them to. His knowledge in chymistry will apply usefully here, and enable him to solve such questions relative to their nature, and probable utility in these respective cases of the officers ; and he will besides be able to advise which of the watering places to prefer ; but the quantity to be taken, and other minutiae, must be left to some doctor on the spot. Williams has written on the waters of the German Spa ; Home on the Dunze ; Falconer on the waters of Bath ; and several other authors on the other most noted waters : but as a vade mecum, wherein will be found a summary account of most of the best mineral waters of this sort in Europe, Elliot's treatise on them may deserve a place in his military library.

From

From an acquaintance with botany, the regimental surgeon will find more amusement than use; but in this light it deserves to be cultivated:—Suppose this was the sole advantage to be derived from it, the amusement is rational, and one of those that will impress his mind with a still higher idea of the wisdom of the Creator. This will appear to him from the great link the vegetable kingdom forms in the chain of created things; the variety and wonderful structure of each individual plant; the various uses it serves, whether in the different arts, or in food and medicine; or whether as a purifier of the atmosphere that surrounds us which is so necessary for the maintenance of life. This is every moment rendered more impure by animated nature; and without being strained and differently modified in the minute vessels of vegetables, it must in a short time destroy “whatever breathes the breath of life.” It is surely more rational for a man of science thus to amuse himself in his hours of vacation, in his walks of pleasure, than either angling, fowling, or hunting; tho’ exercises that are not only pardonable, but perhaps praise-worthy in the officer, since they brace his nerves, and keep him

him from idleness and criminal dissipation: but the surgeon's duty ranges in a very different sphere, and in him therefore such amusements are less allowable. "Whatever busies the mind" says the Rambler, "without corrupting it, has at least this use, that it rescues the day from idleness; and he that is never idle will not often be vicious."

While I remained in the service this study was one of my chief amusements, and one also from which I found much pleasure, and some advantage. By this means I never regretted the want of acquaintances, tho' often among strangers. Had I been incapable of finding entertainment from this source, I must either have often remained alone, or constantly sought the society of officers; the bad effects of a regimental practitioner's spending too much of his time among them, lest it should alienate his mind from his proper employment, I have already pointed out.

A few books, with a very simple apparatus, are sufficient here. Linnæus's *Systema Vegetabilium*, and if convenient his *Spec. Plantar.* with some easy author on the elements of the science, such as Rose, or Lee's *Introduction*, will almost be sufficient. He may add a
 Transla-

Translation of Linn. System. &c. by the Botanical Society at Litchfield, if he chuses; as also Lightfoot's Performance, and Hudson's Flor. Anglica, both describing the plants of Great Britain. The sole apparatus that is necessary is a small knife, a single lens, and a glover's needle for the purpose of dissection, and examining the structure of the fructification.

During the time he remains in Great Britain or Ireland, as he is more immediately concerned in the plants of those islands, he will find the two books that have particularly treated of them most useful. I omit mentioning others on botany for the same reason I omitted many in the other sciences.

The opportunities a regimental surgeon possesses of visiting, and remaining for some length of time in a variety of places and climates, renders it still a fund of greater entertainment and pleasure to him. We find few places situated at any great distance from one another, that will not afford some plant not common to both. The pleasure of making any such discoveries, will compensate for the trouble (if it may be called such) of searching for them; and since botany is now become so
fashion-

fashionable a study, that the regimental surgeon can scarcely enter a town of any note; where he may not find some adept in it; in this way alone he will make respectable acquaintances, from which may result mutual improvement and entertainment to both parties.

It is altogether impossible he can make a Hortus ficcus, he cannot convey a large bulk of dried plants from place to place; but he may make memoranda of the places where he has seen the more rare plants, or dry particular specimens for his botanic friends in other parts of the kingdom, &c. which they will thankfully acknowledge.

It is unfortunate for the soldiery, that the regimental surgeons apply in general so little to books. I am sensible this reflection is unjust if applied indiscriminately. Several eminent and industrious men are now in this situation,* and more have been during the late war whose services are now superceded by the peace.

In

* Among this number I must beg leave to mention Mr. M'Causland, of the 74th regiment; this gentleman I have no personal acquaintance with, but his ingenious paper in the 8th vol. of the Med. Comm. speaks his merit.

In pointing out the foregoing authors, I do not mean to set up my judgement as a standard for others; every one will in a great measure be guided by his own taste. I have omitted many, and those perhaps superior, and more pertinent to the situation of army surgeons than those referred to; yet I am persuaded he will find his account in possessing several of those pointed out. But of whatever books his library consists, they ought to be on useful subjects: and since he is limited in their number, the greater regard should be had to their quality.

CHAP.

CHAPTER X.

THE UTILITY OF CULTIVATING THE ACQUAINTANCE
OF MEDICAL MEN IN THE DIFFERENT QUARTERS;
AND THE STUDY OF THE NATURE OF THE SOIL, AND
QUALITIES OF THE WATER IN EACH, RECOMMENDED.

THE more we converse on subjects of our profession, the better, as we may reasonably conclude, we shall be instructed therein. It is so in every mechanical branch; and it must also be the same in a scientific profession. A mechanic keeps company with men of the same craft, they talk on subjects relative to their business; of different mechanical movements, &c. and new thoughts may occasionally occur, and improvements be reciprocally suggested. The merchant attends 'Change, and converses with his brother merchant on the prices of the different commodities they wish either to purchase or to vend, and thus information circulates: for according to Ovid,

Congenial passions, souls together bind,
And every calling mingles with its kind;

Soldier

Soldier unites with soldier, swain with swain;
The mariner with him that roves the main*.

F. LEWIS.

As far however as my knowledge reaches this is far from being the case in regimental practice. 'Tis true that in the society to which the regimental surgeons more immediately belong, there are not persons of their own profession among whom they might associate. It is not always they meet other regimental surgeons. This confines their conversation almost constantly to the officers of the corps to which they belong. But they should consider that this is not a place where they can introduce medical subjects. If an officer occasionally turns the discourse to physic, the surgeon must give the simplest, and most obvious answer to his questions; nor will the subject for the most part be ever introduced except on their own complaints. Officers would neither listen to, nor indeed understand a more scientific detail; and to intrude such conversation on the

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company

* Scilicet ingeniis aliqua est concordia junctis,
Et servat studii fœdera quisque sui
Rusticus Agricola, miles fera bella gerentem,
Rectorem dubiæ navita puppis amat.

OVID.

company at other times might be deemed, and I really believe would deserve to be considered, not only as unpolite, but pedantic. They are not interested in such subjects, and therefore have no desire to listen to medical discussions. What is it to a man whose profession is the sword, to be told, that such a complaint had such an appearance; and that such a medicine in a specified quantity will produce certain effects; and that particular improvements may result from it; and the like? If instead of this conversation he relates to the officer the different manœuvres a body of men went thro' on any particular occasion; how they behaved; in what form drawn up; whether they looked well, and were well clothed; whether they were well disciplined; and other things of this nature with which they are more immediately acquainted, and connected, they will listen to him with pleasure, and thank him for his entertainment. This is natural; they are now acting in the way of their duty, enquiring after useful and entertaining anecdotes relative to it. Should not this be an example to the surgeon to pursue a similar mode, and seek the conversation of those
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of his own profession? "With what satisfaction," says a learned author, "could the politician lay his schemes for the reformation of laws, or his comparisons of different forms of government before the chymist, who has never accustomed his thoughts to any other objects than salt and sulphur?"—"The highest and noblest enjoyment of familiar life, the communication of knowledge, and reciprocation of sentiments must always pre-suppose a disposition to the same enquiry, and delight in the same discoveries."

If the surgeon is ambitious of no other company than that of officers, he must undoubtedly lose any taste he possessed for medical subjects and conversation. When once this inclination, this propensity for the company of men in the same line with himself is blunted, it will seldom be renewed: nay, in time the degeneracy may be so great, that he will feel as awkwardly in the company of medical people, when chance brings him into it, as at first he did among the military; and for the same reason; their conversation will be different from that which he has now been long accustomed to. In this case

we may apply the words of an eminent author on the subject of proper associates for medical men. "It will be right," says he, "to avoid the being too often with men of weak heads," (it is not meant to apply this to officers) "the too frequent conversation of these people sometimes brings us down to a level with them, when we are the least aware of it. By thinking with them we insensibly accustom ourselves to think as they do.— A bad taste once become familiar, soon becomes the only one we have." Retirement then on many occasions is a thousand times preferable to company where he is so liable to alienate his mind from subjects wherein he is so intimately concerned. Retirement in preference he ought undoubtedly to chuse. Retirement is no bondage to a man of a contemplative turn of mind: on the contrary, it is agreeable. Most men at particular times seek retirement, and are happiest when alone. A man really enjoys society the better for being sometimes absent from it. He is surely to be pitied who must depend always on others for his happiness, or entertainment. Happiness is enjoyed to the greatest perfection, where the chief source of it centres

tres in a man's own breast. I have already pointed out the way in which he may occupy part of his leisure hours; yet there is no need of continually flying from the company of the corps: it is enough if it be only moderately sought; if he divides his time properly between their company, and the company of himself. It was on this plea I ventured it as my opinion in a former part of these remarks, that the surgeon ought not to dine constantly at the Mess.

How many young men have made early shipwreck of their understandings on this very point? An early introduction into company, where the passions find no controul and the bias to dissipation, instead of being restrained is encouraged, has soon blunted the edge of acuteness, and left either a rake, a sot, or a glutton, where nature had planted genius and education; and fostered wisdom and penetration. For as an eminent author justly says, "Long intervals of pleasure dissipate attention, and weaken constancy: nor is it easy for him that has sunk from diligence into sloth to rouse out of his lethargy, to recollect his notions, rekindle his curiosity, and en-

gage with his former ardour in the toils of study."

This leads me to the recommendation of the company of medical gentlemen to regimental surgeons in the different towns where they are quartered. Here they may be both entertained and improved; at least their conversation will lean towards topics, which in a great measure relate to their proper line of life. Cases of patients will be related, questions in medicine started, from the discussion of which, both parties may be gainers, and some little addition made to the stock of their knowledge. This strengthens the mind, and confirms, (if I may be allowed the expression) the habit of well doing. "It is," says an ingenious author*, "by right and regular exercise, that our intellectual, as well as corporeal endowments, in general, acquire any sort of readiness and activity."—Or, as Lord Verulam expresses it, [speaking of logic] "*Non solum dirigunt, eam (Scil. mentem) sed et roborant; sicut Sagittandi usus et habitus non tantum*

* Letters concerning Education to a Gentleman entering the University, p. 146.

tum facit, ut melius quis collimet, sed ut arcum tendat fortiolem *.

Experience has taught me the utility of what I here recommend. During the time I served in the army, my first care on coming into new quarters always was, to enquire into the characters of the medical gentlemen of the place, and in what estimation their professional abilities were held. I soon after found means of introduction to such as I understood to be most eminent in their business, and most esteemed in the town. This indeed proved one of my greatest sources of happiness during my service. In this way I formed several connections that I shall ever reflect on with pleasure, and whose acquaintance will ever do me honour. Here I had a farther advantage; a comparison of the situation, diseases, and healthiness of a variety of places with one another.

And since I have touched on this subject, allow me to add, that a regimental surgeon should make this his first and peculiar care on change of quarters. This is a matter of no little moment to him, as he will not now be taken by surprize, when the diseases incident

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* De Augment. Scient v. i..

to the place, or then epidemic in it, appear among the soldiers. He has received, we shall suppose, such information from the practitioners settled there, as may in some measure enable him to obviate part of the evil impending; while he adopts those remedies, when it does appear, which their experience have taught them to be most successful in similar circumstances, or he improves them by his own sagacity. This is material information, and perhaps may save the lives of some of his patients.

Here he must also remember that places at no great distance from one another may differ greatly in respect to healthiness. One may not only be subject to more frequent disease than the other, but also to some particular one, which may properly be called the endemic of the place. I have known this fact in places at no greater distance than two miles and a half; nay half a mile, and it may be even less; however incredible it may appear to persons unacquainted with such situations.

The distance between the villages of Wheathamstead* and Harpenden, is only two miles and a half. The latter is on a much drier

* Bedfordshire, and the borders of Hertfordshire.

drier foundation, as well as a more elevated situation than the former; and as experience shows, much less subject to intermittents, the fever of the soil. Wheathamstead is built on a very low ground, in a sort of dell; and through it runs a small river whose banks, for many miles, are so flat that the water overflows them, and in wet weather forms a marsh spreading considerably on both sides. It is thickly surrounded with wood to a great distance round, as is the whole country. Not only intermittents are more frequent here than at Harpenden, though so contiguous, but likewise putrid diseases; and when they appear they rage with severity. There is indeed scarcely a town of any extent to which the same remark will not apply; and in the space of less than half a mile we shall often find one part of a town, or even street more subject to sickness and certain diseases than another. Soldiers are very much confined to a particular spot: if they be found more than a mile from their billets, without a pass, they are liable to be taken up for deserters. Their confinement may render them more subject to the endemic, as well as epidemic of the place.

During

During the spring of 1782, I had an opportunity of seeing this remark concerning the different degrees of healthfulness of contiguous places verified. A putrid fever and sore throat took place in Wheathamstead, and exerted its violence chiefly among puerile and infantile subjects; though some few adults were likewise sufferers. When it proved fatal, it was generally in a few days. The uncommon wetness of the season joined to the natural moisture that is retained in the soil here, where copious miasmata are always exhaling, laid the foundation of the disease.

No complaint of this kind appeared at Harpenden, though the distance be only what we have mentioned; and from this known difference in the two places, there was little reason to apprehend it. A surgeon at Luton, which is about seven miles from it, who attended a patient ill of it there of about six years of age, whom I visited with him, and who soon after died, agreed with me in opinion, that the rest of the children of the family* should be instantly removed to this village, not doubting from the nature of the soil,

* Son of the Rev. Mr. Wheldon, Rector of the parish, &c.

foil, but they would escape it there. The event verified our opinion.

In like manner St. Albans and Luton are but ten miles asunder; yet the latter is far more subject to intermittents than the former, because it is also much shaded with wood, lies very low, and has the river above-mentioned running through it, causing much stagnating water near its banks. The same may be said of Redburn and St. Albans, which are only four miles and a half distant from each other.

Great Yarmouth, in Norfolk, and the village of Gorleston, in Suffolk, are only two miles distant, and in a straight line across the river scarcely one; yet there is considerable difference in the healthiness of the two places. Yarmouth lies lower by many feet, and on a flat, once a sand bank, still preserving its level form; and though the foundation is sandy, and the swarth loose and light, the water lies at no great distance from the surface. This was proved from a well dug on the same level, on the opposite side of the river, below the beach on which Gorleston stands; and is farther proved from the several
pieces

pieces of water that constantly stagnate round Yarmouth.

Besides, Gorleston is almost entirely free from those fogs in which Yarmouth is so frequently enveloped. I have seen a fog so thick cover the town from the sea in a few minutes, as well as from the marshes on the west of it, that an object at twenty yards distance could scarcely be distinguished; while a very great alteration at the same time took place in the heat of the atmosphere. In an hour or two these would again disappear, and the sun shine forth. This vicissitude of weather would perhaps be repeated once, twice, or oftener in the course of a day. The elevated situation of Gorleston preserves it from such sudden changes of atmosphere. Gorleston is situated west of both sea and river; Yarmouth between them; the piece of ground on which Yarmouth stands being by this means almost a peninsula; the river running parallel with the sea for between two and three miles before it falls into it, forming a tongue of land not more than from a quarter to half a mile in its broadest part.

Two miles farther south than Gorleston, on the common of Hopton, the soil is even

more dry and light, with much heath ; the situation is also still more elevated above the sea, and the water at a considerable distance from the surface. This was proved by wells dug for the use of the camps formed there in 1781 and 1782. They were obliged to penetrate deep before they found water. The summer of 1782 was remarkably wet ; yet no diseases proceeding from moisture or miasmata took place among the troops. There was not a fever of any kind during the encampment ; nay even some affected with chronic complaints now recovered from them in a great measure. This was the case with an officer long labouring under an affection of the lungs.

The same observation may be made respecting Lowestoft, which is six miles south from Hopton common, and along the same coast. It is likewise elevated considerably above the level of the sea, and is not immediately surrounded with wood. There is a large lake south-west of the town, about two miles ; but I have not found its exhalations produce any sensible effects on the health of the inhabitants. I spent eleven months along this coast from Lowestoft to Yarmouth ; and had
time

time in this period to form some observations. The difference of these elevated situations, and the low situation of Yarmouth appeared still farther by the greater number of sick while the soldiers lay in it, than what was experienced on Hopton common the preceding summer.

These examples might suffice to show, that places at small distances may differ greatly in respect to healthiness; but we shall add one more as a farther illustration. The city of Lincoln is partly built on a high hill, and partly in a low vale. This produces very great difference with respect to the soil and health of the inhabitants. Close on the town is a large lake; and a little west, at the distance of a field resembling meadow, marshy and scarcely to be travelled unless in dry weather, is another still larger, called Swan Pool. But in winter and in wet weather, the whole country round, almost as far as the eye can reach, is almost an universal lake. From the high to the low town it is little more than a quarter of a mile; for the mountain on which part of the town stands rises abruptly. Yet the difference is so great, that it is customary for the medical gentlemen there to send their

their patients from the low to the high part for their recovery. The endemics of the place, *i. e.* intermittents, and remittents, are both more frequent, and more obstinate in the low than in the high town. This has been long observed by the faculty there. And on this observation being made to the commanding officer when I lay in it, he very prudently improved by the hint, and ordered a frequent change of quarters among the privates, from the high to the low town, and vice versa, to prevent any disease that by a longer continuance in the marshy part of the town the soldiers might be liable to contract.

I have dwelt perhaps too long on this subject, and needlessly multiplied my illustrations; but it was with the design of more strongly enforcing the necessity of the regimental surgeon's application to the study of the soil in their different quarters; a species of knowledge more peculiarly proper for him, as the soldiers from their frequent change of quarters are more particularly liable to suffer from the effect of unhealthy situations. This knowledge, it is superfluous to tell them, they will obtain speedily from
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an acquaintance with the medical gentlemen of the place; though their own observation must unite, for the better conviction of the truth they receive; as a man may always rely more on the fidelity of his own observations than on others.

Before I quit the subject, I shall just hint at another example; and yet perhaps one that is not so forcible as some of those we have given. In Ipswich, the capital of Suffolk, there is likewise a variety in the situation, though less than some of those places already mentioned, which produces some variety in the healthiness of its different parts. Cornhill, St. Matthew's-Street, and a few others in the vicinity of the market-place, being considerably more elevated than the east and south-east parts of the town, have a freer circulation of air, and are less subject to intermittents and other fevers; which, though this is by no means a sickly town, but rather the reverse, frequently attack the poor in the lower parts, namely in St. Clement's-Street, the Common Quay-Street, the Upper and Lower Washes, as they are called, those parts of St. Helen's contiguous, and the close narrow streets or lanes in several other parts of the

the town, of which there is a considerable number.

The water is remarkably pure in the higher parts, which may among other things, contribute somewhat to the less frequent appearance of disease there. From some late trials, and a comparison made between it, and that which serves the lower parts, it is found remarkably purer.

St. Clement's-street runs also parallel to, and close by the river Orwell, the ooze of which appears above the surface; and indeed the whole bed of the river, which is of considerable breadth, is left nearly dry for almost two miles in its extent, on every ebbing of the tide, except in its channel, consisting only of a small winding stream in the middle, the shipping being left fast in the mud till the return of the tide.

From this copious miasmata must be exhaled, which cannot fail to debilitate, and predispose the inhabitants near it to fevers of different types, more frequently than in the higher parts of the town, where these noxious effluvia arising from the ooze do not reach. Let any person walk along the banks of the river for some way during the absence

of the water, and the disagreeable putrid smell from the mud will sufficiently convince him, that the air around must be greatly tainted; yet the distance of the low part of the town from the higher, does not exceed half a mile.

The next thing a regimental surgeon should have in view is the nature of the water in his new quarters: a great deal may depend in preserving health, on the quality of this necessary article of life. Changes in the water may produce diseases independent of other auxiliaries; and if he be not watchful in this respect, he may be considerably puzzled to find the cause, and to apply a cure.

When a regiment in which I served some years, marched from Newcastle on Tyne to the barracks at Tynemouth, in June 1781, only nine miles distant, a diarrhoea appeared among the soldiers a few days after, which proved both troublesome and obstinate for some weeks. I attributed the cause, after some reflection, to the water of the place; and on advising them to be as sparing as possible of its use in drinking, the complaint soon disappeared. The water there is hard, and curdles soap, owing to the different mineral

substances

substances with which the neighbourhood abounds. The whole country for many miles round may be said to consist of pit-coal, and other minerals, such as pyrites, wherein the vitriolic acid prevails much. While the regiment remained in Newcastle, no complaint of this sort appeared, though the water there is equally, if not more loaded with mineral particles. The reason seemed to be the use of small beer, which the men received from the publicans on whom they were billeted. On going into barracks this allowance ceased, and they now were obliged to drink water where they drank beer before. This affected their bowels, partly from want of use in drinking it, and partly from the nature of the water itself.

On the succeeding February I was still farther confirmed in the truth of this observation; for on the 26th regiment going into the barracks and relieving ours, the very same malady befel them. Mr. Millar, their surgeon, consulted me on the occasion, having been left behind in sick quarters, and I gave it as my opinion, that the fault was in the water, and gave him at the same time, a relation of what had happened to my patients

the preceding summer. Of course, he very judiciously ordered his hospital to be supplied with milk; and cautioned the men to be sparing in their use of water; but in so small a village, it was impossible to procure milk for the whole regiment, though they were not above one third so strong as ours.

There remains still another reason why the regimental surgeon should cultivate the acquaintance of medical people where he is quartered. From the great trouble and inconvenience there is in transporting a large library from place to place, he cannot be supplied with many books that would otherwise be necessary for him. His library must therefore be very circumscribed, as already pointed out. For though he should possess all the books we have mentioned as proper for his perusal, yet they will form but a very contracted library, particularly for a man who wishes to pass several of his hours daily in reading.

The acquaintance and friendship of the settled practitioners will supply this defect. He will have the use of their libraries if his behaviour be such as command civility, or deserves their friendship: and they will be
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the reader to oblige him, as he does not come among them a rival in the profession. He will find this of no small advantage. The defect of his own scanty collection will in this manner be well supplied. There are few surgeons or physicians who are at any time established in a place that have not a considerable variety of books. Besides, if there are any extensive booksellers in the place where he lies, he should agree with them for leave to read, provided they have a good assortment of those medical, philosophical, and other works which he wishes to peruse.

And moreover, as difficult cases in practice will occasionally occur, he can now have the advice and assistance of some of the medical gentlemen whose friendship he has procured. It is seldom a regimental surgeon is placed near other regimental surgeons to take their advice, supposing them well qualified to give it. He is always most among settled practitioners: nor is this one of the least reasons why he should form connections among the medical brethren of the place in which he resides.

To

To conclude, the more a medical man converses with medical men, or men of science, the more will be his opportunities of receiving information, and his emulation will be thereby kept alive. A regimental surgeon may have many such opportunities, from the variety of places he goes to, which must always afford him a greater variety of such associates, provided he takes a proper method to be introduced, and is inquisitive on such subjects.

END OF THE FIRST VOLUME.



ERRATA

VOL. I.

CHAP. I. p. 2. l. 2. after *service* read (.)—l. 6. for *ether* read *one*

CHAP. II. p. 11. l. 5, after *few* read (:)— p. 30. l. last, for *in* read *into*—p. 38. l. last for *as* read *for*—p. 46. l. 6. from bottom for *He* read *The Surgeon*,—p. 53. l. last, for *when* read *when*—p. 64. l. 17. after *fornication* add (:)—p. 67. l. 2. for *so* read *in this manner*.—p. 69. l. 3. from bottom, for *skin* read *skin*

CHAP. IV. p. 112. l. 2d. from the bottom, after *on* add *of* p. 119. l. 12. after *properly* add (.)—p. 122. l. 8. for *dical* read *medical*—p. 122. l. 8. from bottom, after *attention* add *should*, and for *finds* read *find*

CHAP. V. p. 128. l. 7. from bottom after *state of* add *the want of*—p. 136. l. 7. for *accoucher*—read *accoucheur*

CHAP. VI. p. 154. l. 11. for *so* read *so*—p. 171. l. 12. from bottom, after *suffocation* dele (.) and after *minutes*, add (.)

CHAP. VII. p. 191. l. 13. for *coagulate* read *coagulable*.—p. 193. l. 11. for *young's* read *young*

CHAP. IX. p. 280. l. 6. after *matter*; read (.)—do. l. 3. from bottom, for *sequilæ* read *sequelæ*

CHAP. X. p. 324. l. 2. from bottom, before *command* add *to*—p. 325. l. 6. for *at* read *for*

DIRECTIONS TO THE BINDER.

Inhaling Tube—plate, to be placed before p. 219—of Vol. I.

Tourniquet plate, before p. 225—of Vol. I.

The explanation of the plate to be placed next it.